

Redesign of the NSTA Learning Center Request for Proposal

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Request for Proposal
Redesign of the NSTA Learning Center Website
<http://learningcenter.nsta.org>

This plan details the National Science Teachers Association (NSTA) redesign of our integrated learning portal and community platform.

1.0 Learning Center Background

1.1 Corporate Overview

The National Science Teachers Association (NSTA), founded in 1944 and headquartered in Arlington, Virginia, is the largest organization in the world committed to promoting excellence and innovation in science teaching and learning for all. NSTA's current membership of more than 55,000 includes science teachers, science supervisors, administrators, scientists, business and industry representatives, and others involved in and committed to science education.

1.2 Learningcenter.nsta.org

The mission of the NSTA Learning Center (NLC) is to enhance the personal learning of teachers by providing a suite of tools, resources, and opportunities that support teachers' long term growth based on their unique learning needs and preferences within a collaborative learning environment.

The current version of the NLC web site corporate site was launched in March of 2008. The site is built in asp.net, vb.net and utilizes a SQL database. The content on the site is a mix of static text and customized code for an integrated professional learning community that involves a recognition system of points, badges, leaderboards all linked to individuals personal profiles where NSTA tracks individuals' online discussion forum posts, publicly shared collections, virtual badges earned for online community activity (aggregation, dissemination, avocation-rating, and commenting), a well as completed SciPacks self-directed web modules linked to a final online assessment. Additionally, users may download conference attendance transcripts and certificates earned for SciPacks, web seminars and NSTA Online Short Courses.

There are also several tools related to personalized differentiated learning where teachers may complete an online personal self-assessment (PD Indexer) in particular content areas and see a list of recommended resources that might be added to a PD Plan and Portfolio tool (or their personal library) where teachers may showcase their learning and change in classroom practice over time by generating reflections, uploading or pointing to samples of student work, images, file or URLs. Teachers currently use the PD Plan and Portfolio tool to generate a PDF document that showcases growth over

time by embedding this content into a single document to share with colleagues and administrators. Embedded URLs and thumbnail images in the PDF report link back to source files saved in the cloud.

The Learning Center currently has nearly 150,000 unique “active users” defined as those that have at least one resource in their personal library. This make up includes both individual users, NSTA members, and approximately 150 “cohort” groups that include districts, several state departments of education, and approximately 33 universities and colleges that all use the NLC in a blended fashion to extend and enhance their onsite face-to-face learning experiences for their respective teacher groups (both pre and in-service teachers).

Collectively, these users have added over 1,200,000 resources across their personal libraries from the over 11,000 NSTA digital assets available. Over the last three years users have uploaded over 40,000 personal resources, and created and shared 4,500 public collections of resources for the integrated community forums.

There are 12 integrated discussion forums in the Learning Center and users have generated over 2,200 topics across these forums and contributed over 22,000 individual posts. A unique community system showcases contributory user info next to each post, such as a thumbnail image or avatar of the user, their activity progress bar in the community, total community activity points earned in the community, a single virtual badge users select to represent themselves to others in the community (from all the badges they’ve earned reflected on their personal profile page), and the ability to privately email the user from the discussion forum.

A set of back-end community and learning analytics track the following information:

- Number and type of resources added to users individual libraries and across their respective cohorts—if deployed as part of a blended district or university model
- Pre and post Assessment data from the PD Indexer tool when deployed at the beginning and end of a formal professional learning experience (such as a university course or district summer teacher PD experience).
- Final Assessment data for each SciPack web module, as well as the frequency, date, log-in times, and the percentage of completion of the individual SciPack components (called Science Objects if accessed outside of the SciPack)
- Online community activity is automatically tracked in the background for both unique cohorts (group data), and by individual, which includes activities such as:
 - Completing the PD Indexer personal self-assessment
 - Adding personal resources to your library
 - Creating collections of resources in your library
 - Recommending resources to others
 - Attending web seminars
 - Writing reviews for resources
 - Posting comments/questions in the forums
 - Sharing resources and collections of resources

- Creating a Digital Portfolio and goals within it
- Uploading evidence to support a learning goal
- Completing reflections within the Portfolio tool
- Generating Reports from the PD Plan and Portfolio tool

The Learning Center website averages about 70,000 unique visits per month and 900,000 page views per month and generates a percentage of the organization's annual revenue both for sales to individuals (B2C) and subscription sales to districts and universities (B2B). We document the hours that teachers spend each week in the Learning Center as they attend web seminars, complete web modules and online courses, and create collections that they share and posts through the integrated discussion forums. See [Appendix A](#) for screen captures depicting these tools, badges and integrated community features.

2.0 Project

2.1 Goal

NSTA and its selected partner will redesign the learningcenter.nsta.org site using responsive templates that will adapt to the users platform (desktop, large tablet, small tablet, or phone), recommend a robust content management solution that ties into our existing content creation platform and functionality. The site will use a SQL database.

The overall site layout will expand from 800 leveraging a responsive template for web viewing, and incorporate a less dense, cleaner look and layout with more white space, larger text, and an overall simplified interface and landing page, as to not overwhelm the user upon entry. The page also **must integrate seamlessly with the style, color scheme, and templates for the existing NSTA.org web site**, with its own unique header whether for the public pages, or private cohort subscription models, ultimately funneling and integrating the following user actions for a more intuitive user experience:

- Provide access to content resources (both individual resources and collections/bundles that may be shared between users through individual recommendations and via the integrated community forums),
- Provide access to and awareness of learning opportunities (e.g., online courses, web seminars, virtual conferences, MOOCs, major NSTA conference strand topics)
- Facilitate using tools to diagnose, track and document personal learning and stature in the integrated community network (enhanced graphical dashboard providing user feedback on learning progress toward identified goals, and a public facing profile page of accomplishments and contributions to the community, e.g., forum posts, collections shared, reviews generated)
- Seamlessly integrate with the professional learning network with simple navigation to search the community for topics and users making posts within the

forums, surfacing most emailed, viewed user collections and user contributions to the community.

- Permit users to share and rate learning pathways traversed by others through completion of pre-designated experiences and resources (bundles) that culminate in the earning of badges and certificates validated by external entities such as universities upon submission of a digital teacher portfolio and passing an embedded final assessment (awarding certification in areas such as STEM). See [Appendix B](#) for expanded metaphor.
- Individual pages should have “sharing buttons” connecting to NSTA’s social properties and be fully socially-optimized (enabled). Each page should have sharing buttons that automatically populate the user’s FB/Twitter/G+/etc, feeds with a page-specific message. For instance, if the user is on a landing page for a specific webinar, then the name of that webinar would be pulled, not a generic text box.”

The development process will include usability testing at the wireframe and early mock-up stage, permit A/B usability testing once deployed for future instantiations of the homepage, and personal profile pages of users. The site will include private personal learning dashboards for individual users, connecting them with other like-minded colleagues who have similar learning resources in their library (see below). The site will also incorporate public facing overall community activity such as most viewed and email collections, most valued community forum posts, elevating user contributions.

Simplified PD Plan and Portfolio/Calendar tools

The PD Plan and Portfolio tool will be re-designed to simplify the graphical user interface (GUI) of the tool, and more seamlessly and intuitively integrate connecting to other users with similar learning goals, resources in their library, similarly completed web modules or learning experiences, such as web seminars or virtual conferences, online courses. This will also integrate as part of a simplified learning dashboard/feedback on progress toward learning goals or forthcoming opportunities identified of interest by the user (e.g., web seminars, conferences, online courses). This will remove the existing calendar tool, and transition to a “reminder” feature on the dashboard, and export function to a local users’ Outlook accounts as an option for the user.

Simplified My Library tool interface (creation of collections)

The “My Library” tool currently allows users to upload their own resources and bundle them into collections alongside NSTA resources and conference presenter materials. This is a good thing for personalization and user retention. The mechanism for creating collections needs to be improved, simplified and support third party content beyond NSTA (part of the desire of the NGSS@NSTA portal as well). A drag-n-drop interface where users may add individual resources to a collection is desired.

e-Commerce Integration

The check-out e-commerce process should be integrated with the existing NSTA store back-end already in existence and function as a single check-out process, leveraging the

store ecommerce product detail pages that already exist. It should add the existing functionality/action of the “Add to PD Plan” button (e.g., adding the metadata about a resource or opportunity to a user’s PD Growth Plan) without executing a purchase. This is akin to a “saved shopping cart” feature, but with a learning metaphor. The redesign should also maintain the “Add Resource to Library/In Library--Go” button functionality. The “Add Resource to Library/In Library Go” Button automatically adjusts the access to the resource based on the user’s permission/role in the community. The user role determines (enables or restricts) the level of access to the content resource based on the following roles: a) free to all, b) member/non-member, c) district subscription, d) University cohort e-textbook subscription. This functionality already exists in the current learning portal and should be examined for ease of use as users seek to add resources to their personal library or as part of their long-term growth.

Aptify and Loyalty/Incentive Program

The Learning Center site will also leverage our integrated e-commerce engine and Aptify membership association management database to permit the redemption of digital resources through a loyalty program, which permits users to accrue points for online community activity outlined in part in section 1.2 above. The NLC already has the ability to award the accrual of points that are tracked and presented on each user’s individual personal profile page for many actions such as adding, rating and sharing resource collections, creating learning goals, attending web seminars, but the redemption of NSTA e-products and merchandize, extended or discounted membership, and sweepstakes entries to free membership, conference registration, etc. are not yet included. NSTA will code this redemption process, and initiate member and non-member quarterly campaigns to engage users such as voting on their favorite NSTA e-journal article and pointing to uploaded YouTube video of users piloting an NSTA e-Journal article. The “style” and location of pages for promoting these campaigns is a point for integration in the overall NLC redesign. Our NLC system already mirrors online integrated community systems of major corporations such as Marriott as part of their loyalty program and this should be done in coordination with our Aptify membership association management system (see [Appendix C](#)).

NGSS@NSTA Integration

Another major integration will occur with the NGSS@NSTA portal, where certain tools that already existing in the NLC should be leveraged, such as our discussion forums, and users’ personal My Library tools. For example, a discussion forum topic accessed from the NGSS@NSTA portal page should leverage the existing forums in the NLC, and make available other forums topics in a sidebar presentation of some kind. Research from the American Institutes for Research have demonstrated a “spill-over” effect where individuals will indeed engage beyond an singular topic of interest if presented other opportunities via the GUI (Perez-Lopez, K; Cambridge, D; Byers, A., 2012). Another example of integration is the personal My Library tool that permits the creation of resource collections, which may be annotated and shared publicly in the community and rated and shared by others. Similar functionality is desired in the NGSS@NSTA portal, and enabling a user’s personal library collection to interface with the NGSS@NSTA portal creates “stickiness” between the tools and platforms versus creating a competing

parallel system. A wizard feature to tag and share and submit users' collections aligned to the NGSS standards allowing them to be discoverable via the NGSS@NSTA portal is desired.

2.2 Scope of Work

The project should include the following:

- CMS requirements analysis and selection
- Site wireframes
- Usability testing
- Visual design and integration of components described above
- Template production

NSTA is seeking a unique template that has a similar style to the NSTA.org site for the following pages. All other pages on the NLC site will be based on these templates:

- **Home page:** (logged in and not-logged in) with dynamic slide show or other means of rotating featured content, either manually or on a schedule and be simplified (less dense) using a funnel approach for specific actions upon entry:
www.learningcenter.nsta.org
- **Personal Profile page**—you need to be logged in. This page will have both a public facing page and private facing enhanced learning dashboard in addition to data already presented there (badges earned, collections shared, forum posts contributed, etc.).
<http://learningcenter.nsta.org/discuss/profile.aspx>
- **Tool overview page:**
http://learningcenter.nsta.org/my_learning_center/tools.aspx
- **Tertiary Pages:**
 - Learning Center Impact Pages (testimonials, awards, research/publications)
example: <http://learningcenter.nsta.org/impact/>
 - Education Administrator/University Professor Overview page
http://learningcenter.nsta.org/education_administration.aspx
- **My Library home page** —you need to be logged in. Simplified with drag-n-drop functionality for creating and sharing collections within the integrated community.
http://learningcenter.nsta.org/my_learning_center/my_library.aspx
- **My PD Plan and Portfolio tool**—You need to be logged in. Redesigned for integration across the site connecting others with similar learning goals, resources in their library and completed learning experiences, with a simplified interface (mirrors iBook SciPack widget as reference)

http://learningcenter.nsta.org/my_learning_center/tools.aspx#pdp

- **My PD Record tool**-You need to be logged in. This tool needs a re-design (simplification in layout and access and still present certificates awarded for attendance such as onsite conference, web seminars, online courses, and virtual conferences).
http://learningcenter.nsta.org/my_learning_center/my_transcript.aspx
- **Search results page:**
<http://learningcenter.nsta.org/search.aspx>
- **Science Store product detail page** (integrates and leverages with a single check-out cart via NSTA store e-commerce with simplified “Add to Library/Purchase” button and “Add to PD plan” functionality button)
http://learningcenter.nsta.org/product_detail.aspx?id=10.2505/9781935155171

3.0 Deliverables

The deliverables at the conclusion of the project are:

- Final layered Photoshop files
- Full-size JPEGs/PNGs of all images used with licensed permissions
- Style sheets
- html pages (one for each of the templates above) implementing the design, content management system and style sheets within the metaphor of teacher learning journeys.
- Simplified PD Plan and Portfolio tool integrated with the learning dashboard on the private profile page for user (collapsing the existing calendar tool into a reminder dashboard for upcoming opportunities and learning resources the user desires to complete).
- Simplified “My PD Record” tool that presents a user’s entire learning history with NSTA (past conference attendance certificates, Scipacks completed, online courses and web seminars attended, etc.) that links badges earned and those shared via the Mozilla OBI (SciPacks, Online Courses, Virtual Conferences).
- Simplified “My Library” tool that allows drag-n-drop creation and sharing of resources and collections. Current functionality to create collections is version 1.0 and may be greatly simplified via a drag-n-drop functionality that is dynamic on the web page. Also require search feature for personal “My Library”
- Simple interface for users to share learning pathways along particular common topics of interest (identifying resources and opportunities along similar themes) and connecting with others as they progress along these journeys (STEM would be one topic/theme example)

- Integrated social media share button features into the style/wireframe/template designs.

4.0 Timeline for Project

The current timeline for this project will begin before the end of April and be completed with all expediency over the next 3-4 months.

The following timeline will be followed for the selection of the RFP

RFP Selection Process Milestones	Timeline/Deadline
Release of NSTA NLC RFP	March 31, 2014
Address vendor queries via phone	April 7-April 11, 2014
Vendor Proposal Deadline for Submission	April 25, 2014
NSTA follow-up with vendors	April 28-May 2, 2014
Selection of Vendor	May 5, 2014

5.0 Funding for the Project

The proposal budget should not exceed \$50,000.

6.0 Point of Contact

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 National Science Teachers Association
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 W: 703-312-9294

Appendix A: Learning Center Overview

Search Resources and Opportunities

[NSTA Home](#)
[Learning Center Home](#)
[My PD Tools](#)
[Subjects](#)
[Learning Resources & Opportunities](#)
[Community Forums](#)
[Ed. Administrator Professor](#)
[Help](#)

My Learning Center

Welcome, Albert :: [View Cart](#) | [Admin](#) | [Log Out](#)

[Welcome](#)
[My Profile](#)
[My Library](#)
[My PD Indexer](#)
[My PD Plan and Portfolio](#)
[My PD Record and Certificates](#)
[My Calendar](#)
[My Notepad](#)
[My Community Forums](#)
[My Help Desk](#)

Teacher Learning Journeys: Learn Today...Your Way

Create your personalized learning journey based on your own unique learning needs and preferences where you can plan, track, and assess your progress over time. You can start at "Explore Learning Resources and Opportunities" below or by creating your game plan with the PD Plan and Portfolio tool. You may also review an [archived Web Seminar overview](#) of the Learning Center.

Explore Learning Resources and Opportunities

[Advanced Search](#)
[See all FREE Lesson Plans](#)
[See all FREE Resources](#)

By Subject	By Grade Level	By State Standards
Earth & Space Science Life Science Physical Science	Elementary Middle School High School College	Select your state to begin:

Do-It-Yourself Learning

Learn at your own pace online with these 1-2 or 6-10 hour interactive activities.

[SEE ALL DIY LEARNING RESOURCES](#)

Live Online Seminars & Classes

Learn online from certified instructors with your colleagues. 1-2 hour seminars, week and month long courses are available. Earn state and university credit.

[SEE ALL ONLINE EVENTS](#)

Books, Articles & Websites

[Books](#)
[Book Chapters](#)
[eBooks](#)
[Journals](#)
[SciLinks](#)

In Person Experiences

Attend an NSTA workshop in person to learn hands-on techniques with other teachers. Earn state and university credit.

[SEE ALL IN PERSON EVENTS](#)

Albert, you've already earned **3560 Activity Points!**

You've recently earned:

Onyx Science Scope Article Author

You're close to earning:

Diamond Commenter
[Post 25 more comment/questions](#)

[UPDATE YOUR PROFILE](#)
[CHECK THE LEADER BOARDS](#)

[Click here](#)
[Hours of Operation](#)

ONLINE SHORT COURSES
[Register Today!](#)

[RSS](#)
[SHARE](#)
[Facebook](#)
[Twitter](#)
[Email](#)

Most Popular Resources

[Emailed](#)
[Viewed](#)

1. Coral Reef Ecosystems
2. Cell Structure and Function: Cells – The Basis of Life
3. Plate Tectonics: Layered Earth
4. The NSTA Reader's Guide to $\langle \rangle A$ Framework for K–12 Sci...

[More Popular Resources...](#)

James Johnson
 Last Week's **Top Advocate**

This Week's Highest Rated Collections

[S.T.E.M.](#)

Shared by:
[Maritza Garneff](#)

What's available in the NLC?

- All PD tools
- All public collections (*Over 4,400*)
- All public community forums (*12*)
- All conference materials (*4,688*)
- Over 11,400 digital resources
 - Journal Articles (*5,894*)
 - e-Book chapters (*Over 2,218*)
 - Science Objects (*94*)
 - SciPacks (*25*)
 - Web Seminar archives & podcasts (*~1,900*)
 - External Resources: NASA, NDEP (*55 STEM videos*)



2

My PD Indexer

- Diagnose Content Knowledge Understanding
- View Resources and Opportunities for Consideration
- Add to your Plan

PROFESSIONAL DEVELOPMENT INDEXER

The Professional Development Indexer helps you diagnose your needs in specific science content areas and provide suggestions of NSTA e-PD resources and opportunities you may want to consider as you plan your professional development (PD). The Indexer does not assign a grade or present a score to the questions you answer, but saves a list of recommended resources for later review.

You have two options for indexing your PD needs. First, you may review all of the content areas across any of the three science disciplines provided: physical, life, or earth and space science by clicking the "Diagnose All Subjects" button with a specific discipline. This will present you with five questions randomly selected from each content area for that discipline. Or, you may select one or more content areas within a discipline by checking the appropriate boxes and then selecting the "Diagnose Selected Subjects" button. This will present 10 questions from each science content area selected.

Earth and Space Science Indexer

Content Areas Covered: ☐ Rock Cycle ☐ Earth, Sun, and Moon ☐ Gravity and Orbits ☐ Solar System ☐ Plate Tectonics ☐ Universe ☒ Oceans Effect on Weather and Climate ☐ Earth's Changing Surface

Completed Indexer Results

Indexer Results	Results	Delete
Rock Cycle, Earth...	Results 3/23/2007	Delete
Solar System, Pla...	Results 11/5/2008	Delete
Gravity and Orb...	Results 11/17/2009	Delete
Solar System	Results 10/5/2009	Delete
Oceans Effect on ...	Results 11/21/2009	Delete

Life Science Indexer

Content Areas Covered: ☐ Cell Structure and Function ☐ Coral Reef Ecosystems ☐ Science of Food Safety

Completed Indexer Results

Indexer Results	Results	Delete
Cell Structure an...	Results 8/14/2008	Delete

6

My PD Plan and Portfolio

The screenshot shows the 'The NSTA Learning Center' interface for 'My Professional Development Plan and Portfolio'. The top navigation bar includes links for 'Welcome', 'Select Goal Categories', 'Define/Measure Goals', 'View Status', and 'Generate Report'. On the right, there are links for 'BACK TO LEARNING CENTER' and 'MY ACCOUNT'.

The main content area is divided into two panels. The left panel, titled 'Portfolio Manager', shows a tree view of 'My Content Knowledge'. It includes a goal 'Solar System Knowledge' with evidence such as 'NSTA Solar System SciPack', 'Solar System SciPack: Reflection', 'Solar System Journal Article', 'Photo of student', and 'Solar System web sites'. Other goals listed include 'RGO Flight Week', 'RGO Web Seminars', 'RGO Classroom Implementation', 'Solar system content', 'Increase/ref my content knowledge in Space Science', and 'Complete TINES PD activities'. A progress bar at the bottom indicates 'You are currently using 0% of your 1 GB'.

The right panel, titled 'My Tasks', features a 'Create Goal' button and a section for 'Instructions'. The instructions state: 'Click the button above to define a specific goal statement. Information from the following websites may help you define goals based on state/national standards:'. Below this, there are links to 'Review Your State Certification Requirements', 'Standards for Professional Development for Teachers of Science', 'National Board for Professional Teaching Standards', 'National Educational Technology Standards', and 'Next Generation Science Standards'. At the bottom, there is a link to 'View "Creating a Goal" How-To Animation'.

7

The screenshot shows the 'NSTA National Science Teachers Association' 'My Library' interface. The top navigation bar includes links for 'NSTA Home', 'Learning Center Home', 'My PD Tools', 'Subjects', 'Learning Resources & Opportunities', 'Community Forums', 'Ed. Administrator Professor', and 'Help'. The 'My Library' section is titled 'Welcome, Flavio' and includes a 'View Cart' link and a 'Log Out' link. Below the title, there is a brief introduction: 'Welcome to your collection of professional development resources. Select from the links and tabs below to access your NSTA resources, your uploaded items, organize them into collections, and then share your collections with others.'

The main content area is divided into two columns. The left column, titled 'My Resources', includes sections for 'Do-It-Yourself Learning' (with links to SciGuides (42 items), SciPacks (4 items), and Web Seminar Archives (53 items)), 'Live Online Seminars & Classes' (with a link to Web Seminars (2 items)), and 'External Resources' (with a link to External Resources (6 items)). The right column, titled 'My Resource Collections', includes sections for 'Books & Articles' (with links to Science Objects (60 items), Podcasts (61 items), Symposia Archives (6 items), Book Chapters (60 items), eBooks (1 item), and Journal Articles (173 items)), 'In Person Experiences' (with a link to No Items), and 'My Uploaded Resources' (with a link to My Uploaded Resources (158 items) and an 'Upload a Resource' button).

On the far right, there is a section for 'ONLINE ADVISORS' with a link to 'ASK A QUESTION' and a profile for 'LeRoy Attles Top Advocate'.

8

My Library

- Store NSTA resources
- Upload personal resources
- Review, annotate, recommend resources
- Create, share, make collections public

My Community Forums

Over 2K Topics; 20K posts

12 Public Forums, including:

- Physical, Life, Earth/space Science
- NGSS
- Evaluation/Assessment
- Research in Science Ed
- Elementary Science
- New Teachers
- **Your own Private Forum**

The screenshot shows the NSTA Community Forums interface. At the top, there's a navigation bar with 'Home', 'General Science and Teaching', and 'The Flipped Classroom'. Below this, a search bar and a '20 people currently online' indicator are visible. The main content area displays a forum post by Kayla Anselmi, dated Thu Dec 08, 2011 1:15 PM. The post discusses resources for flipped classrooms and includes two attachments: 'Flipped Classroom Parent Letter.pdf' and 'Flipped Mastery Rubric Unit 7.doc'. To the right of the post, there's a user profile for Kayla Anselmi, showing 20 posts and 3500 activity points. Below the main post, there are two more posts: one by Sandy Gady (dated Thu Dec 15, 2011 10:40 PM) and another by Pamela Auburn (dated Sat Nov 03, 2012 1:00 PM). Each post includes a brief description and a user profile summary. At the bottom, there's a 'Flipping Your Classroom Collection' section with a list of resources like 'The Flipped Classroom Infographic', 'Flipped Learning', and 'Flip Teaching'.

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The screenshot shows the NSTA Learning Center Profile page for Kathy Renfrew. The profile includes a header with the name 'Kathy Renfrew' and '21175 Activity Points'. Below this, there's a 'Private Message Kathy' button. The main content area features a 'Recent Posts' section, a 'Recent Public Collections' section, and a 'Recent Reviews' section. To the right of these sections, there's a 'View Your Activity Log' button. The profile also includes an 'About Me' section with a paragraph of text about her experience as a teacher and her involvement in NGSS development. Below the 'About Me' section, there's an 'Affiliation' field showing 'VT Agency of Education' and a 'Location' field showing 'West Barnet, VT'. At the bottom, there's a 'Badges Earned' section displaying a grid of 16 different badges, each with a unique icon and color.

10

NSTA Online Advisors

- Master educators and professors
- One-on-one live support via private chat
- Moderate forums
- Review resources
- Create collections
- 38 hours/week



Arlene Jurewicz-Leighton

Arlene Jurewicz-Leighton M Ed is an instructor and instructor trainer for on-line science education courses, an e-mentor and facilitator for eMSS for new science teachers and an analyst and consultant for science digital resource projects. Arlene has facilitated over seventy five sessions of science education graduate courses for Jason Project / National Geographic. During her tenure Jason won the prestigious EdNet Pioneer Award for excellence in technology innovation for science professional development.



Patty McGinnis

Patty McGinnis is a national board certified teacher with over 20 years teaching experience at the 7-12 level. She has master's degrees in biology and in educational technology and has been the recipient of several grants and awards, including the Toyota Tapestry Grant for Teachers, the Toshiba Foundation Grant, and the Paul DeHart Hurd Award for National Middle School Science Teacher. Patty serves as the NSTA Middle Level District Director and is president-elect to NMLSTA.



Caryn Meirs

Caryn Meirs, elementary teacher, works with gifted and talented 3rd to 5th graders in a magnet setting and is a resource for enrichment and science content (grades 2 through 5). She is a veteran of NSTA conferences, web seminars, JASON Project, GLOBE, and NASA training programs. Her current coursework includes studying the Earth's polar regions, LEGO competition robotics, field investigations using GLOBE protocols, science misconceptions, and designing and building an organic garden/outdoor classroom space.



11

IHEs using the NSTA Learning Center as their e-textbook:

- Central Connecticut State University
- College of Charleston
- College of St. Benedict/St. John's University
- Dominican University
- Elizabethtown College
- Florida International University
- Fort Hays State University
- Idaho State University
- Indiana University-Purdue University Columbus
- Indiana University South Bend
- Mercer University
- Midwestern State University
- Minnesota State University Moorhead
- Montana State University Billings
- New Mexico State University
- Northern Arizona University
- Northeastern Illinois University
- Plymouth State University
- Saint Mary's College at Notre Dame
- San Diego State University
- Shippensburg University
- Southern Illinois University Carbondale
- University of Central Missouri
- University of Delaware
- University of Maryland Baltimore County
- University of Montana
- University of Regina
- University of South Carolina Aiken
- University of Texas at Tyler
- University of Wisconsin Oshkosh
- Virginia Commonwealth University
- Virginia Tech
- Western New Mexico University Gallup
- Wright State University

<http://learningcenter.nsta.org/group/etextbook.aspx>

12

E-learning Resources for Preservice Teachers [Log Out](#)

Step 1: Details | 2: Personalize | 3: NSTA Collections | 4: Your Collections | 5: Assessments | 6: Confirmation

This step is optional

An NSTA collection is a "bundle" of Learning Center resources. URLs of external websites may also be part of an NSTA collection.

Adding an NSTA collection of resources can save your students time and may provide focus to your course. Choose one or more of the NSTA collections below to pre-populate your students' Learning Center libraries. From their "My Resource Collections," students can easily add the resources to their personal libraries.



Note: Finalize your selections of NSTA collections BEFORE your students register for the course. Any changes made to your collection selections after your students register will not be reflected on your students' accounts.

- ☐ [Gravity and Orbits: Middle Collection](#)
A collection of resources for middle school teachers on the topic of gravity and orbits.
12 Items [View all 12 items in this collection](#)
- ☐ [Gravity and Orbits: High Collection](#)
A collection of resources for high school teachers on the topic of gravity and orbits.
10 Items [View all 10 items in this collection](#)
- ☐ [The Solar System: Elementary Collection](#)
A collection of resources for elementary school teachers on the topic of the solar system.
12 Items Not yet reviewed [View all 12 items in this collection](#)
- ☐ [The Solar System: Middle Collection](#)
A collection of resources for middle school teachers on the topic of the solar system.
15 Items Not yet reviewed [View all 15 items in this collection](#)

[SAVE AND GO TO STEP 4](#)

How may we improve this process? [Please tell us what you think.](#)

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Idaho State UNIVERSITY

Visit the Idaho State University Homepage

[NSTA Home](#) [EDUC3331 fa13 Home](#) [My PD Tools](#) [Subjects](#) [Learning Resources & Opportunities](#) [Community Forums](#) [Ed. Administrator Professor](#) [Help](#)

My Learning Center Welcome, Wendy [View Cart](#) [Log Out](#)

[Welcome](#)
[My Profile](#)
[My Library](#)
[My PD Indexer](#)
[My PD Plan and Portfolio](#)
[My PD Record and Certificates](#)
[My Calendar](#)
[My Notepad](#)
[My Community Forums](#)
[My Help Desk](#)

Teacher Learning Journeys: Learn Today...Your Way

Use these learning resources and community to design your own long-term growth plan, collaborate with others, and document your growth!

Wendy, you've already earned **40 Activity Points!** Activity Progress Bar

You're close to earning: **Onyx Advocate** [Write a review](#) | You're close to earning: **Onyx Commenter** [Post 5 more comment/questions](#)

[UPDATE YOUR PROFILE](#) [CHECK THE LEADER BOARDS](#)

ONLINE ADVISORS ASK A QUESTION
[About Online Advisors](#)

Alahna Vondette
Last Week's Top Aggregator

This Week's Highest Rated Collections
[reading in science](#)
Shared by: [Felice Kaufmann](#)

Welcome to EDUC 3331: Science Methods for Elementary Educators

We share this site across all sections of the course, so a big welcome to all from Pocatello and Twin Falls this semester. Your instructors know you will enjoy this professional development experience and gain incredible insights into teaching science now, as well as teaching science in the future. Most of all, have fun exploring the resources available to you.

Wendy Ruchti and Amy Christopherson

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[Community Forums](#)
[Education Administrator](#)
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Welcome

The NSTA Learning Center for Preservice Teachers

Thousands of interactive resources and useful tools are at your fingertips when you use the NSTA Learning Center. As a preservice teacher, you can access these resources, store them in a personal library, and return to them as needed throughout your career. You can also choose to upload your own files or notes to your library, making a secure and available collection of resources that suit your personal and professional needs.

Your professor may have created a collection of specific resources for your course and placed those in your library in the Learning Center, under the tab labeled: "My Resource Collections."

From the dropdown menu below select your state, institution, professor, and course. Your subscription to the e-learning resources will be added to your cart for purchase. The fee is \$99 for your subscription. Please pay with your credit card to access your personal resources in your library.

State:

Institution:

Professor:

Course:



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Recent Survey: Activities completed by science pre-service teachers in the Learning Center (n=93):

Activities	# of responses
Created a library of resources	84
Enhanced my content knowledge with SciPacks, Science Objects	78
Completed my profile to join the community	66
Shared a collection of resources with other students/teachers	56
Participated in the community forums; posted comments	43
Wrote a review about a resource or collection	41
Watched a web seminar archive to enhance knowledge on topic	35
Used the PD Plan and Portfolio tool to document my learning	30
Attended one or more live web seminars to enhance knowledge and to network	29

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The NSTA Learning Center

Back-End Instructor Dashboard

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Overview	Individual Users	SciPack Summary	Manage Content	Calendar	Portfolios	Email List
Individual Users						
Accountability system for professors; collect data on usage by individual, manage the content on your class landing page, analyze pre/post test scores and other activity data.						
User	Date Registered	# of Resources via Subscription	Last Active	Activity Points		
Teacher name	02/03/2013 1:42 PM	33	03/25/2013 5:43 PM	1345		
Teacher name	09/24/2011 9:58 PM	56	04/02/2013 7:55 PM	1165		
Teacher name	02/06/2013 1:50 PM	24	04/01/2013 9:00 PM	1270		
	01/31/2013 9:13 PM	0	02/04/2013 1:14 PM	0		
	02/11/2013 10:09 PM	24	03/14/2013 7:53 PM	1210		
	03/05/2013 9:10 AM	163	04/02/2013 4:08 PM	2610		
	02/01/2013 1:04 PM	106	04/01/2013 9:03 PM	2265		
	01/31/2013 2:02 PM	237	04/01/2013 11:56 AM	3490		
	01/31/2013 7:57 PM	67	04/02/2013 7:36 PM	1780		
	02/06/2013 3:53 PM	41	03/27/2013 11:23 AM	1115		

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SciPack Access History	
4/2/2013	
Teacher name	
Page	Access Date
Solar System Final Assessment	Thu Mar 14, 2013 10:34 AM
Jovian Anomalies	Wed Mar 13, 2013 12:53 PM
Terrestrial Anomalies	Wed Mar 13, 2013 12:53 PM
Differentiation	Wed Mar 13, 2013 12:51 PM
The Gaseous Beginning	Wed Mar 13, 2013 12:51 PM
Quiz	Wed Mar 13, 2013 11:51 AM
Summary	Wed Mar 13, 2013 11:51 AM
Looking Through New Eyes	Wed Mar 13, 2013 11:51 AM
Probing the Solar System	Wed Mar 13, 2013 11:50 AM
Seeing into the Sky	Wed Mar 13, 2013 11:50 AM
Telescopes: The Power of Technology	Wed Mar 13, 2013 11:49 AM
Subsequent Theories	Wed Mar 13, 2013 11:49 AM
Retrograde Motion as Evidence	Wed Mar 13, 2013 11:48 AM
Size and Distance	Wed Mar 13, 2013 11:47 AM
Measuring Positions of Earth, the Moon, and the Sun	Wed Mar 13, 2013 11:47 AM
View from Earth	Wed Mar 13, 2013 11:47 AM
Earth Among the Planets	Wed Mar 13, 2013 11:47 AM
A Closer Look at Asteroids	Wed Mar 13, 2013 10:25 AM
Quiz	Wed Mar 13, 2013 10:21 AM
Summary	Wed Mar 13, 2013 10:21 AM
Looking Through New Eyes	Wed Mar 13, 2013 10:21 AM
Search for New Bodies	Wed Mar 13, 2013 10:21 AM

SciPack Progress Report	
4/2/2013	
Teacher name	
SciPack	Complete
Flow of Matter and Energy in Ecosystems	0%
Does Matter Matter?	0%
Carbon, Carbon Everywhere	0%
Nothing Matters Without Energy	0%
Learning Outcomes	0%
Pedagogical Implications	0%
Flow of Matter and Energy in Ecosystems Final Assessment Attempts: 0	
Solar System	100%
Earth in Space	100%
A Look at the Planets	100%
Asteroids, Comets, and Meteorites	100%
Formation of our	100%
Learning Outcomes	100%
Pedagogical Implications	100%
Solar System Final Assessment Attempts: 3	
Failed Tue Mar 12, 2013 3:12 PM Score: 61.54%	
Failed Wed Mar 13, 2013 10:00 AM Score: 61.54%	
Passed Thu Mar 14, 2013 10:49 AM Score: 88.46%	

Pre/Post Test Results				
Test	Date Completed	Results	Score	
Solar System Pre-Assessment	2/27/2013 6:01 PM	12/20	60%	
Solar System Post-Assessment	3/12/2013 10:42 AM	17/20	85%	
Earth and Space Science Indexer	3/3/2013 9:02 AM	26/40	65%	
Life Science Indexer	3/3/2013 10:01 AM	33/50	66%	
Physical Science Indexer	3/3/2013 10:34 AM	22/30	73%	

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Activity

Overall Group Activity

9/1/2012 to 12/31/2012

75255 Total Points

- 1134 Add NSTA Resource
- 88 Create Collection
- 42 Complete Indexer
- 0 Add Event
- 1 Add Personal Resource
- 33 Attend Web Seminar
- 42 Complete SciPack
- 43 Write Review
- 10 Recommend Resource
- 62 Post comment/question
- 66 Share Collection
- 33 Publicize Collection
- 20 Create Portfolio
- 390 Create Portfolio Goal
- 298 Upload Evidence
- 163 Complete Reflection
- 39 Generate Report

Activity

Activity for Teacher name

9/1/2012 to 12/31/2012

3955 Total Points

- 69 Add NSTA Resource
- 1 Create Collection
- 1 Complete Indexer
- 0 Add Event
- 0 Add Personal Resource
- 4 Attend Web Seminar
- 3 Complete SciPack
- 1 Write Review
- 0 Recommend Resource
- 3 Post comment/question
- 2 Share Collection
- 2 Publicize Collection
- 1 Create Portfolio
- 16 Create Portfolio Goal
- 18 Upload Evidence
- 9 Complete Reflection
- 1 Generate Report

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Option 1: \$99 per student	Option 2: \$67 per student
Class landing page (with branding), custom text and home button; link back to institution; local leader boards	same
Private community forum (optional)	same
Pre/post assessment items (optional)	same
Online advisors, help desk, online orientation	same
Student: All NLC fee-based resources free for 1-year (except: books, e-books, online courses); tools, forums	Student: All NLC fee-based resources free for 6-months (except: books, e-books, online courses); tools, forums
Student: 1-year NSTA Student Membership (\$35 value)	same
Professor: All NLC fee-based resources free for 1-year (except: books, e-books, online courses); all tools, all forums	same
Professor: Access to administrator dashboard with usage data, assessments scores	same

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NLC as e-Textbook

With the NLC as your e-Textbook, your students will be able to:	With the NLC as your e-Textbook, you will be able to:
Access over 11,400 interactive learning resources	Access over 11,400 interactive learning resources
Deepen their knowledge with rich discussions and resource sharing	Track your students' activities via the instructor's dashboard
Earn learning and activity points, badges, and receive recognition via local leader boards	Customize your class landing page with your own text and institution's logo
Enjoy 1-year NSTA student membership	Join in discussion with other professors using the NLC as their e-Textbook

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Appendix B: Learning Pathways

Envision personalized online learning treks, explorations, and expeditions, linking a series of digital destinations, where like-minded teachers with similar leaning goals may collaborate and are connected via a community. Online advisors assist teachers at various destinations along various expeditions and serve as learning guides. Teacher stamps, badges, points, and certifications may be awarded to document learning at key destinations along their personalized learning journey. University expert panels may validate learning through reviewing digital teacher portfolios or logs, as well as through online self-directed assessments to award CEUs or graduate credit for a fee if the expedition is meritorious of this distinction.

Einstein once said that, “Insanity is doing the same thing over and over again and expecting different results.” With few exceptions, our nation has been doing the same things over and over again in professional development for science teachers and expecting different results: better teaching; higher student achievements. It’s not happening. Scores of reports and test results place us directly next to the Red Queen of Alice in Wonderland ... running as fast as we can to stay in one place.

We need to change. Coupling online learning resources with personalized tools and social learning networks in a way that recognizes teacher contributions and learning are paramount to address this challenge on a national level that is both scalable and sustainable. We need innovative ways educators can make professional learning timely and relevant as well as an ongoing activity that continually improves practice and evolves skills over time, and in a system that recognizes their efforts.

Through online learning systems, teachers may enhance their learning through blending the best of onsite PD with online PD that provides immediacy, convenience, self-direction, and collaboration with other colleagues and experts via professional learning communities. Online communities should enable educators to take online courses, tap into experts and best practices for just-in-time problem solving, and provide platforms and tools for educators to design and develop resources with and for their colleagues.

For teachers to effectively facilitate using interactive resources, learning systems, and connectedness to online communities, teachers need to experience it firsthand—as part of their own learning and professional development.

- National Education Technology Plan: *Transforming American education: Powered by Technology*. Office of Educational Technology, United States Department of Education, 2010

Specifically, **Teacher Learning Pathways** will be the linchpin of a comprehensive individualized online teacher e-learning portal where university partners serve as the institution of record engaging teachers in self-directed learning experiences, validating the knowledge and skill acquisition via digital teacher portfolios, and awarding online badges and/or CEUs and course credit as journeys of different duration



and difficulty are completed. These opportunities may be assembled in various “bundles” coupling resources and opportunities along highly desirable themes, such as the NGSS standards and STEM. Teacher Learning pathways will expand and enhance teacher effectiveness through a self-directed system that includes the use of badges at scale and their potential to motivate, validate, and certify self-directed blended learning as part of professional learning communities.

Through professional learning pathways linked to bundles (tied into both national and local professional learning communities) our resources and opportunities may facilitate a meaningful change in teacher practice. For example, books, articles and conference PD Institutes are rich areas where online technologies may be leveraged to extend the utility of the event or resource via web seminars, e-workshops, e-conferences, online book clubs, etc., all which can have their unique “identity and branding” but cumulatively fall under the umbrella of lifelong learning pathways, where NSTA is the “homebase” from which all learning excursions (or learning pathways) occur.

Learners may comment and reflect upon their learning path(s) both during and after their journey (via a simplified integrated PD Plan and Portfolio tool), and when considering future learning path bundles they may join others who are interested in taking the same learning excursion, or simply collaborate with colleagues who happen to be participating in the same experience or consuming the same resource. For example, one individual may be completing a SciPack in Force and Motion and see an embedded link to a live upcoming web seminar by Dr. Bill Robertson, while another may have attended a face-to-face workshop at our conference and be attending the same live web seminar post conference. Another example, would be when someone is completing a SciPack or Science Object we will present a list of users (with links to their profile page) who are online live at the same time (where they may then send a real-time private message if desired). From within the Pack/Object on Force and Motion we’ll have an area that also provides a link to our asynchronous community forum in Physical Science, as well as the asynchronous archive of the web seminar by Dr. Bill Robertson. This bundling of products and service opportunities along themes and linking those with similar affinities is a powerful strategy to keep users engaged beyond a single experience or resource purchase.

Some pathways may be long and some brief, or some with an extended journey that once embarked upon may be cut short, but in all cases—as learners complete and document their experience (e.g., badges, certificates, CEU credits, graduate credit, etc.), they are captured and presented as part of their professional profile and online portfolio, and made visible via their public-facing profile page. We want to encourage and motivate learners to make reflections, share images, and upload video of their augmented/favorite lessons, as these are tangible artifacts captured as part of their log of accomplishments. There is much on the web about how community is driven bottom-up, focused on the needs of individuals as the driving force, and leveraging mobile advances to facilitate learning and sharing is also important (communication, collaboration, co-creation of knowledge/content).

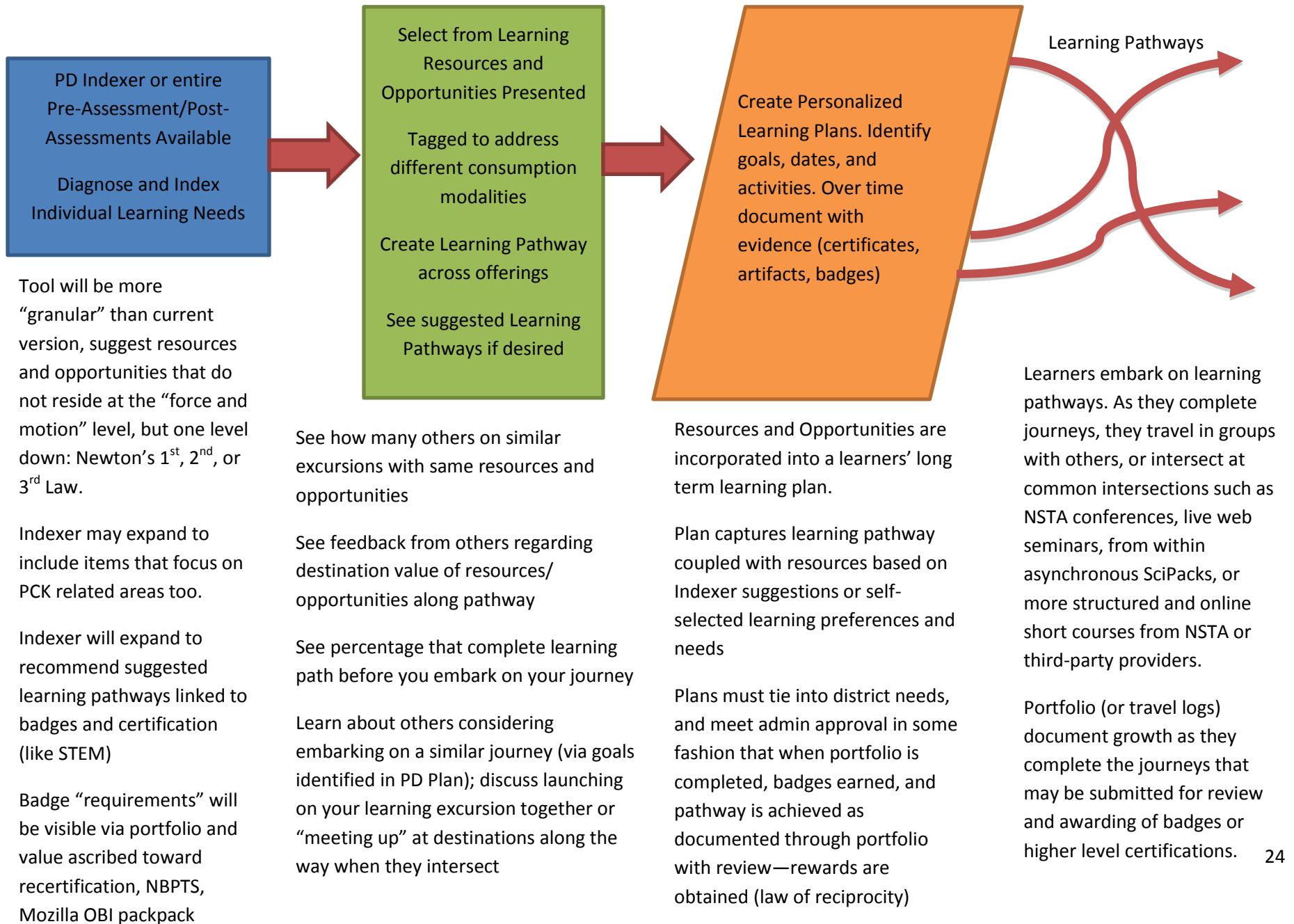


Online advisors may serve to identify the various learning pathways, and bundles to help identify “must see” experiences along the way. We might consider moving beyond thinking only of the construct of “professional development” as the way to describe our value—as this is something that administrators control and make available to educators (externally regulated)— and instead focus on the individual’s personal learning needs and preferences over their entire career, supporting their intrinsic motivation to advance in their profession. This is part of the strategy behind the new points and badge system, drawing on Ryan and Deci’s (2000) Self-Determination Theory, using the recognition of a persistent professional profile to elevate one’s stature and reputation in their community.

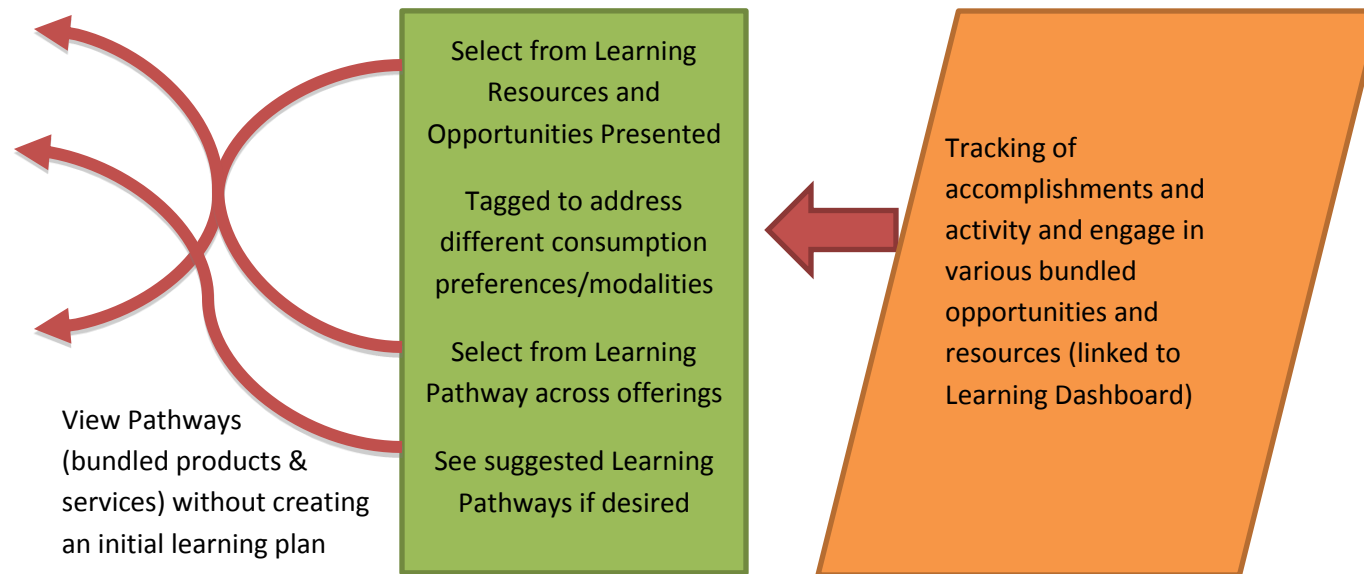
The “homebase” for the learners will be the person’s “profile” landing page (with private and public facing features), which we would technically call a “learning engagement” dashboard. This learning dashboard will be incorporated into the next version of NLC. From a single homebase a learner may explore future learning experiences and resources in a bundled fashion, or pre-arranged pathways we present. They can determine what mode of travel they desire to reach their learning destination and what stops they will make along the way, as well as the length of the entire excursion.

The next page shows examples how users may traverse through these experiences either by using the PD Indexer to identify needs and create a learning plan, or just by selecting bundles that are of interest whereby they begin to create an ongoing experience that is documented via their personal profile page with points, badges, certificates and contributions to the community.

Creating Learning Pathways for Science Educators: Linear initial trajectory through self-regulated learning then diverges once plan initially formed



Creating Learning Pathways (or bundles of products/services) for Science Educators: Entry through informal learning less rigid and non-linear. Users do not create a learning plan initially but select from pathways/bundles and conjoining with others via community



See how many others are on similar pathways or using bundles

See feedback from others regarding value of resources along pathway (bundle). See percentage that complete learning path before you embark on journey.

Learn about others considering embarking on a similar journey (e.g., growth goals); discuss launching on your learning excursion together or “meeting up” at destinations along the way when they intersect (e.g., seminars, within modules).

Resources and Opportunity bundles are incorporated into a learners’ plan as it evolves over time.

Plan is learning pathway coupled with resources from self-selected learning preferences and needs.

Plans are looser, more an amalgamation of independent badges earner over time. Validation more challenging.

You are able to see others with similar goals from forward/public facing portion of PD Plan.

PD Indexer: Confirms need as identify interest and learning pathways, even as on the journey (take pulse-monitor)

Indexer more “granular”. Expands to include items that focus on pedagogy and suggested learning pathways with badges/certifications.

Appendix C: Marriott Loyalty Program

Registration: 1. Create account 2. **Your profile** 3. Invitations

Create your Insiders Profile

Upload a profile photo

Tip: Use a real photo of yourself so that people can put a face to your name.



Upload a photo from your computer
 no file selected
[Reset to default](#)

Note: All profile images will be resized to 500 pixels wide. For best results, choose an image that is already close to that size.

Choose an avatar

Your avatar appears with your content. It helps establish your identity throughout the system.

Selected

Current avatar

Select from among these fine avatars, or...


Create a custom one

YOUR IMAGE HERE

Upload a photo from your computer

 no file selected

Tell everyone more about yourself

The more information you provide, the better. You'll be setting an example for everyone who joins.

Name (Required): alsbyers

Name visibility:

Username: alsbyers

Email: alsbyers@gmail.com

About Me :
Talk about your work history or where you grew up. Whatever you'd like.

My Interests :
Your profile will appear in search results, so if you have professional specialties or interests that you think are useful for others to know, put that information here.

Next: Preview your profile and invite others if you wish.

P

shoeman1000

[Sign in](#) to learn more about shoeman1000, exchange messages and participate in this community. Not a member? [Join Marriott Rewards!](#)

Bio

[Activity](#)

[Content](#)

[Connections](#)

[Groups and Topics](#)

[Reputation](#)

Profile

Badges: 150 posts

Participation Score: 3,031 Credits *(99 this year)*

Participation Level: Trailblazer

470 Credits until Tour guide

Other details

Hometown: plano

Gender: Male

Age Range: 50's

My Kind of Travel: Business, Business

Participation Badges:



14 Spirit to Serve - Insiders style

P shoeman1000

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[Participated](#)

[Following](#)

[shoeman1000's Blog](#)

[shoeman1000's Blog](#)

All Content

[+ Add filter](#)

[Sort by latest activity \(descending\)](#)

1 2

Renaissance New York Hotel 57: Good Job!

Once again, I was treated to a higher level of customer service at a great hidden gem in the heart of the high end shopping district of New York City. Yes, the rooms are small, and the windows in many rooms won't...

P created by shoeman1000

[0](#) [0](#)

My Nomination for Spirit To Serve

After well over 1000 nights stayed in Marriott properties, for only the 2nd time, I am nominating an associate for this coveted award. Over the years, I have had many associates treat me well and make positive contrib...

P created by shoeman1000

[2](#) [0](#) [5](#)

Re: What is Marriott's new Destinations Points Sys...

mammothskier what a terrible situation you find yourself in! Many of us on this site are not timeshare owners and have no idea what atrocities are going on in that regard. Please explain further th...

P created by shoeman1000

[0](#) [0](#) [1](#)

Charleston, South Carolina

Fellow Travlers: I am thinking about a last-minute trip to Charleston over the 4th of July and would truly appreciate any/all comments on where to stay/what to do/ where to eat. Also, anyone out there k ...

P created by shoeman1000

[3](#) [0](#) [6](#)

Columbus Airport Marriott: Consistant

I have stayed at this property in excess of 100 nights over several years. I have lived thru the renovations and must say that the rooms are now up-to-date. I have always enjoyed the CL lounge, the workout...

P created by shoeman1000

[0](#) [0](#)

Stamford Marriott Hotel & Spa: Nice Place

I have stayed in this Property many times over the past 7 years and have lived thru a major renovation. My review today is positive in every way. The property's lobby is new, spacious, welcoming, and clean...

P created by shoeman1000

[0](#) [0](#)