



NTER
The National Training & Education Resource
www.nterlearning.org

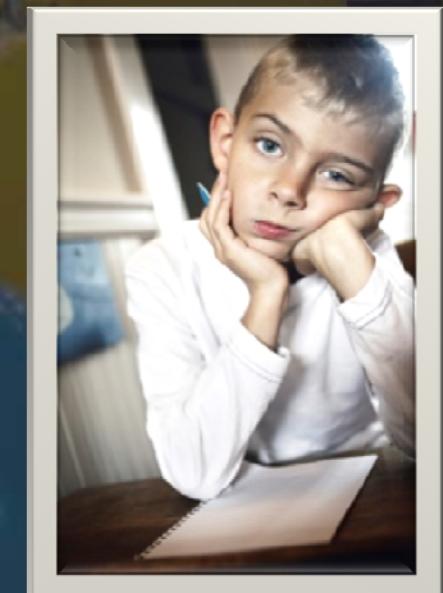
- Dr. Michelle Fox
- Alex Cohen

- Identifying the problems in online learning
- NTER overview
- Innovative Features of NTER
 - Open Source
 - Distributed search
 - Interactive and immersive training
 - 3D in browser assessments
 - Authoring: empowering all to create and learn
 - Social reviews
- NTER Demo
- How to get involved
- Future Development
 - Expert reviews
 - E-Commerce
 - Enhanced recommender system
- Q&A



Opportunities in Education & Training

- We don't do anything like we did 20 years ago, but we educate our students the same way we did a century ago
- Lecture format seen as irrelevant for today's learners who are plugged in everywhere



Just putting the same material online does not solve the problem!

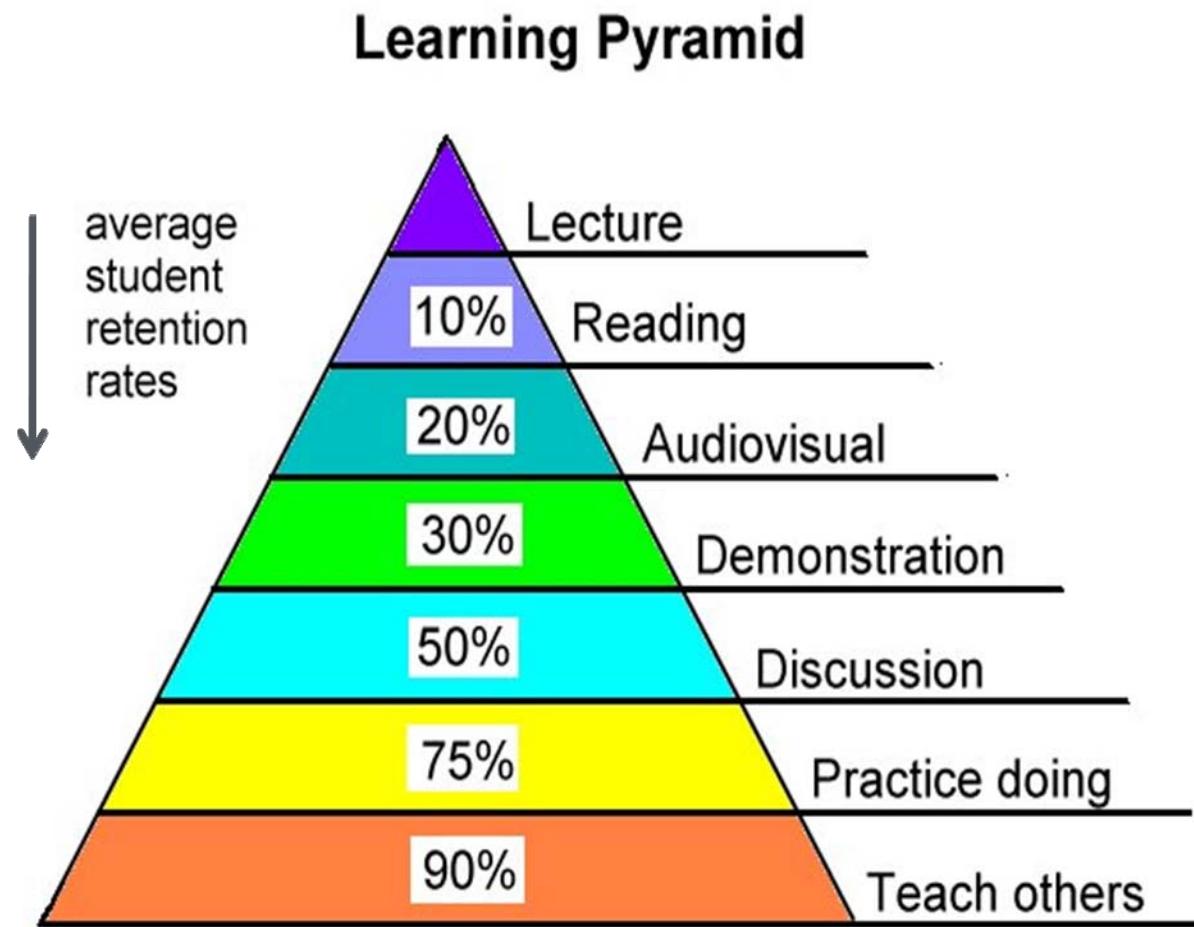


Technology: to Train and Educate Better

- New Learning Tools make possible:

- Highly interactive environments
- Inquiry-based learning
- Bridge theory to practice (explore, operate equipment without the consequences of failure)
- Varied and contrasting examples
- Demonstration
- Access to expertise
- Feedback
- Continuous assessment
- Collaborative environments
- Endlessly patient medium





Source: National Training Laboratories, Bethel, Maine

Support the growth of a capable and flexible workforce by providing quality education and training easily and efficiently through the advances of information technology and recommendations of learning science.

Key Features:

- Open Source
- Distributed search
- Interactive and immersive training
- 3D in browser assessments
- Authoring: empowering all to create and learn
- Social reviews

- **What is Open Source?**
 - The underlying code behind the software is publically available to all
 - Analogous to a “recipe”
- **Advantages of Open Source**
 - “Recipe” allows for modification and improvements
 - Enhanced Reliability and Quality
 - Open Source Communities Find and Fix Bugs More Quickly
 - The open source model builds open standards and achieves a high degree of interoperability
 - Endorsed by NSA



Subsystem	Function	Lines of Code	Main Sponsor
Ilias	Course Management (LMS)	1,300,000	DOD/NATO
Liferay	Enterprise portal (for displaying and configuring other services)	2,150,000	Cisco
MySQL	Database Management System	1,280,340	Oracle
Jasper	Reporting Engine	228,856	Jasper
Apache	Web Server Software	248,980	Apache
Apache-httpd	More Web Server Software	438,785	Apache
Solr	Full text search & navigation	854,662	Apache
Nutch	Web-search software	82,181	Apache
Hadoop	Support data-intensive distributed applications in the cloud	1,343,735	Yahoo! / Apache
WebGL (deprecated O3D)	Enables browser-based interactive content	34,369	Google
Total		7,961,908	

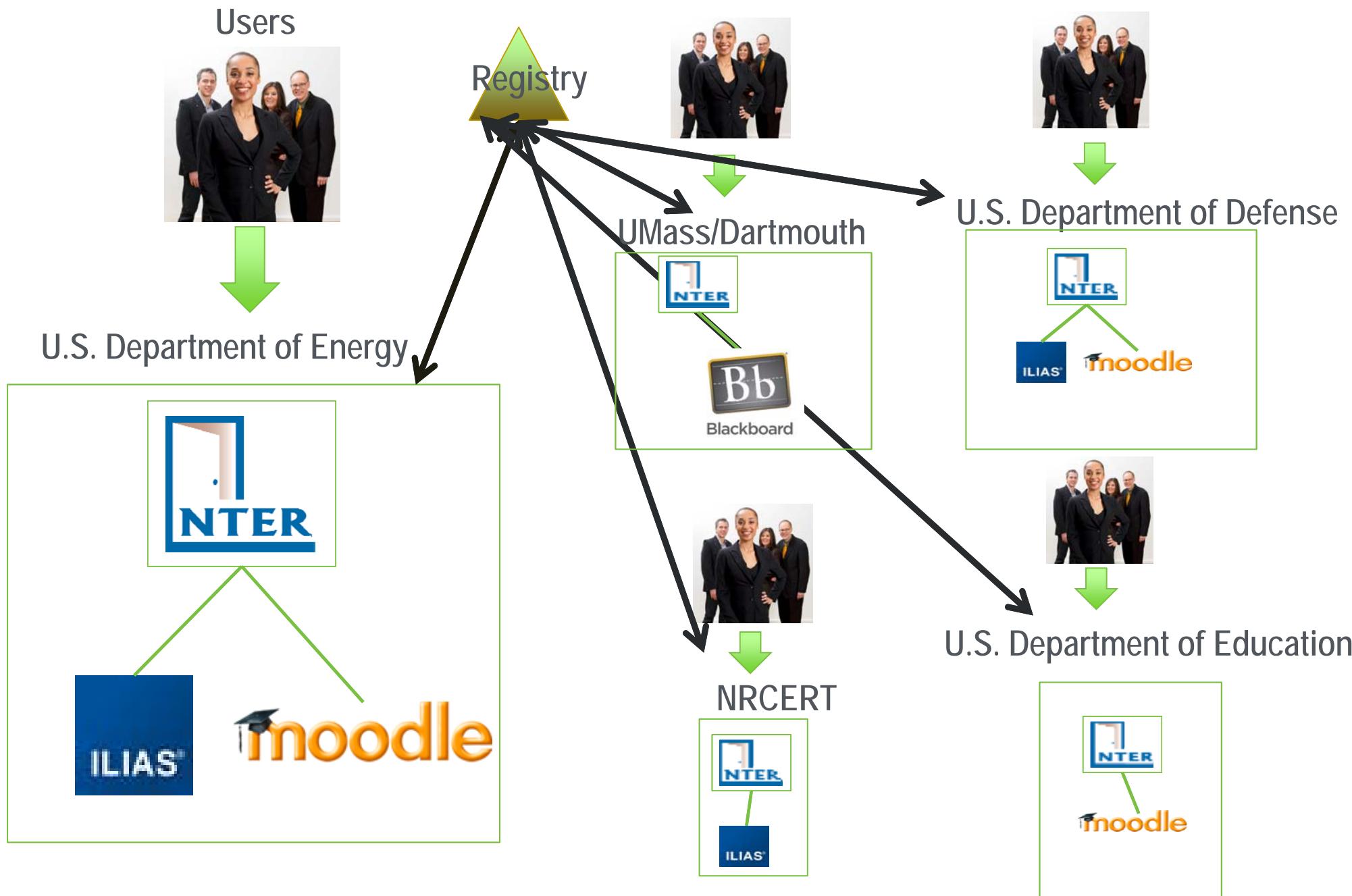
Leveraged code valued at \$800M -- \$1B

- ***Basic and Advanced Authoring Tools*** make it easy, and inexpensive, for organizations to build, and deliver state-of the art learning experiences and continuously improve them
- ***An eLearning Repository with Advanced Search capability*** – gives access to thousands of courses that can be used as is, edited or used as individual searchable content objects to jumpstart course development
- ***A Learning Management System*** for collaborative development, delivery of online & eLearning content



From XKCD.com

What does NTER do?



NTER National Training & Education Resource

National Training & Education Resource (Beta)

Sign In | Create Account

Home Courses About Authors Forum

Learn new skills and advance your career

NTER provides easy access to online courses with 3D activities to enhance your learning experience.

Update your existing knowledge or enter a new field – Get started today!

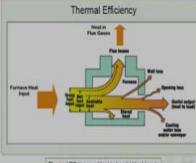
Browse Courses

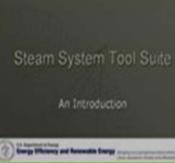
This BETA version of NTER is preliminary and may change without notice. It may have defects, contain inaccuracies, and may not work the way a final version of the software will.

Process Heating
After completing this module, you will understand energy use in U.S. industries, where it is used, and how to reduce it.

Steam End User Training
After completing this course, a participant will know how to assess, evaluate, and manage steam systems.

NTER Program
NTER is an exciting program that makes it easy to find courses of interest and attain new skills.

Thermal Efficiency


Steam System Tool Suite


NTER Program


Virtual Career Network Healthcare

National Training & Education Resource (Beta)

Home Courses Your Course History About Forum

Welcome to VCN's NTER Node

This is the VCN's Node on the Department of Energy's National Training and Education Resource (NTER). In addition to the online courses developed and provided through the VCN, you can also access all of the online courses offered on any NTER node. Many courses are free; some also provide college credit. Take a look at what's available by clicking on "browse courses" button below.

Browse Courses

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Biology


Chemistry

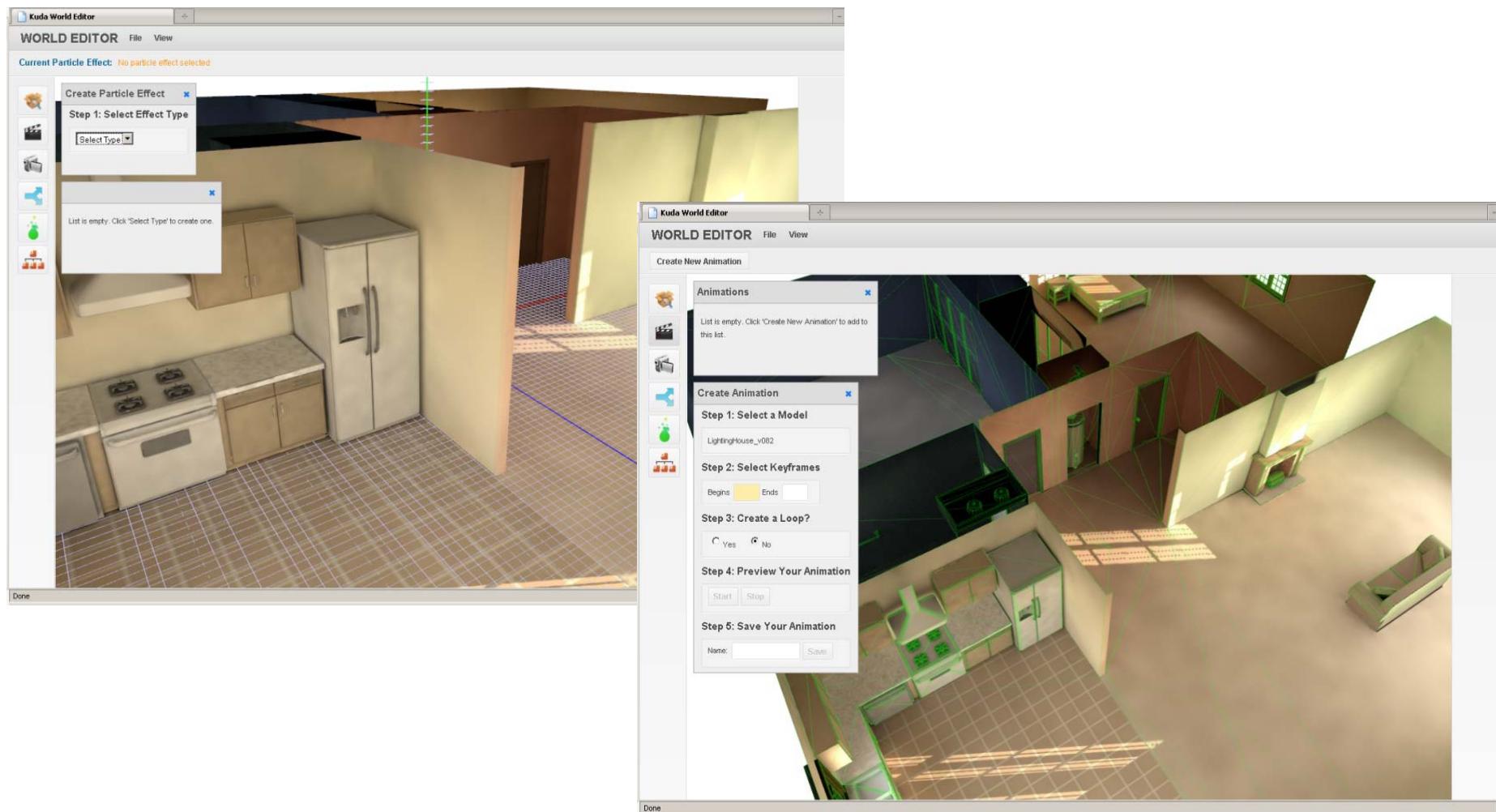

Medical Terminology


DOE NTER Node

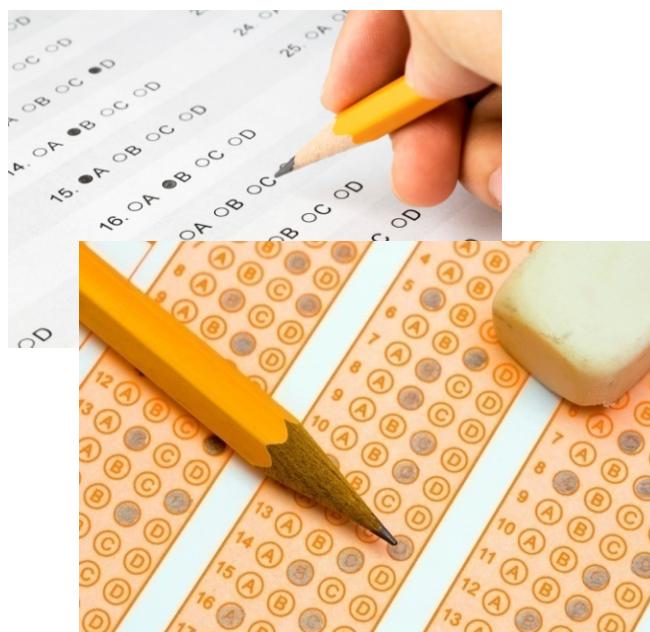
Virtual Career Network Node

Authoring tool for 3D content creation

- Build 3D simulations without programming
- Runs in browser; no heavy downloads



Trading this....



Leaky, recessed light fixtures can cause:

- Electrical problems
- Ice dams
- Furnace malfunction
- All of the above
- Poor light quality

Submit Answers

For meaningful, performance-based assessment

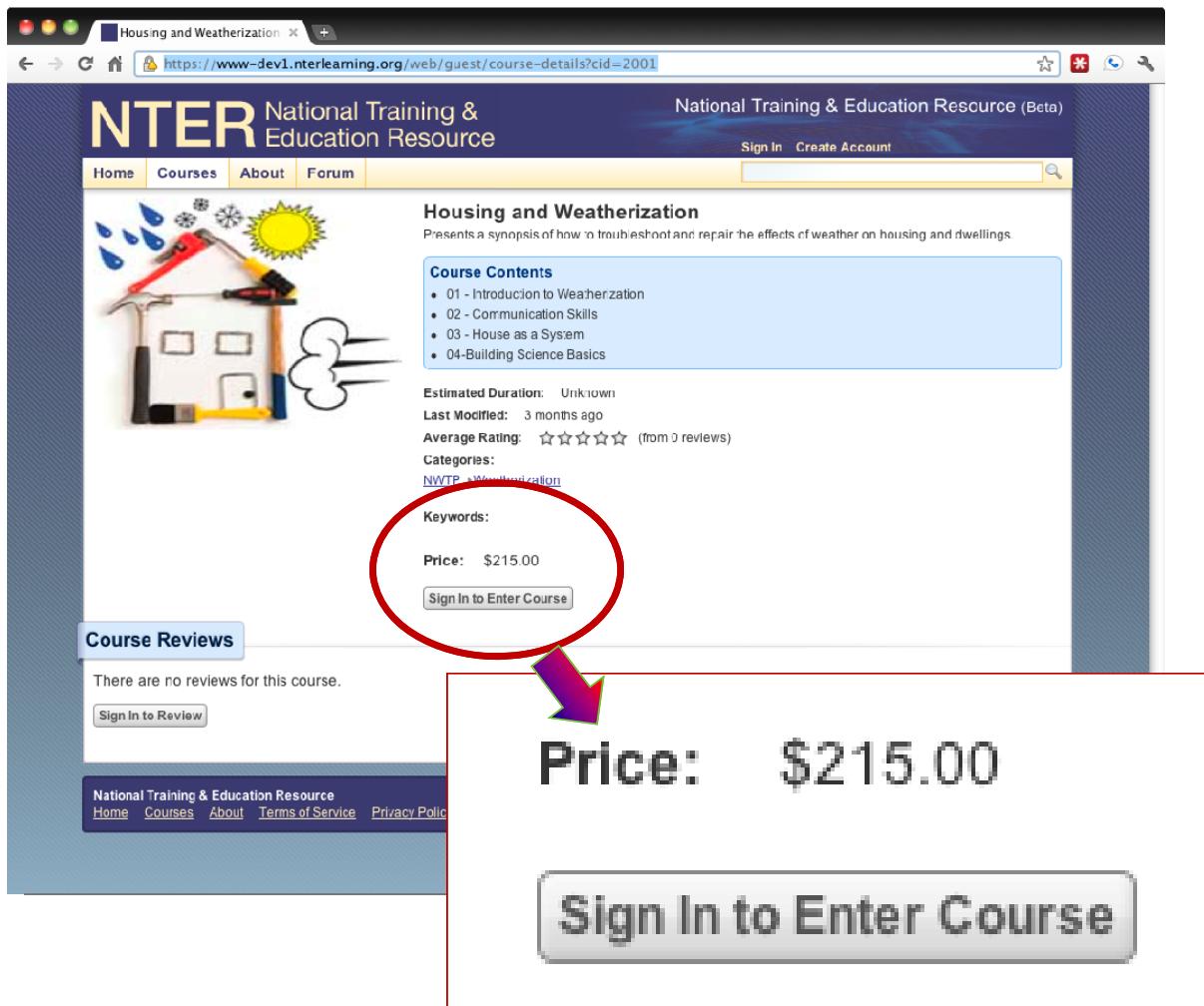
Practical House Preparation

Blower Door Basics: Preparing for a Blower Door Test

Practical House Preparation

Blower Door Basics: Preparing for a Blower Door Test

Correctly configure the house
for winter conditions



The screenshot shows a web browser window for the NTER National Training & Education Resource (Beta) at <https://www-dev1.nterlearning.org/web/guest/course-details?cid=2001>. The page displays a course titled "Housing and Weatherization" with a sun and house icon. It includes course contents, duration, last modified, average rating, categories, keywords, and a price of \$215.00. A red circle highlights the price, and a purple arrow points from it to a large red box containing the text "Price: \$215.00" and a "Sign In to Enter Course" button.

National Training & Education Resource (Beta)

Housing and Weatherization

Presents a synopsis of how to troubleshoot and repair the effects of weather on housing and dwellings

Course Contents

- 01 - Introduction to Weatherization
- 02 - Communication Skills
- 03 - House as a System
- 04-Building Science Basics

Estimated Duration: Unknown

Last Modified: 3 months ago

Average Rating: ★★★★★ (from 0 reviews)

Categories:

NWTP - Weatherization

Keywords:

Price: \$215.00

Sign In to Enter Course

Course Reviews

There are no reviews for this course.

Sign In to Review

National Training & Education Resource

Home Courses About Terms of Service Privacy Policy

Price: \$215.00

Sign In to Enter Course

4 ways to build a market:

1. Courses
2. Instruction (blended)
3. Content
4. Degrees / certificates

- Icons allow users to identify permissions
- Presents information about source

By reviewing this lesson, participants will:

- Know the proper location of thermal and air barriers
- Recognize the driving forces of air leakage
- Understand the connection between air leakage, energy waste, and moisture problems
- Understand how air ducts effect pressure balance within the home
- Understand the principle behind the blower door as a tool for measuring air leakage

Click on the arrow to hear the speaker notes.



00:00

00:00



[Speaker Notes Content]



II 03:34 01:03

Particle Control[Show Arrows](#) [Show Spheres](#) [H](#)**Camera Views**[Window](#) [Outside Side](#) [Inside Fireplace](#)space: Show/hide bounding
with the mouse to rotate the scene, h**Knowledge Check****Adding insulation to the attic does not affect the heating or cooling system.**

- False
 True
[Submit Answers](#)

A house is a system of interdependent parts.

- False
 True
[Submit Answers](#)

Air sealing and insulating a home reduces the heating and cooling load.

- False
 True
[Submit Answers](#)

Leaky, recessed light fixtures can cause:

- All of the above
 Electrical problems
 Poor light quality
 Ice dams
 Furnace malfunction
[Submit Answers](#)

Weatherization affects:

- Only certain rooms of the home
 Just the windows and door
 Just the heating equipment
 The entire house as a system
[Submit Answers](#)



Sample Screen Shot of Available Courses

Courses - nterlearning.org <https://www.nterlearning.org/courses;jsessionid=DCE0F4BE22792B0F010C30226ECBFF3E>

NTER National Training & Education Resource

National Training & Education Resource (Beta)

Sign In Create Account

All Courses

All Featured New Popular



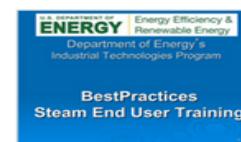
No Fear Act
The Notification and Federal Employees Anti-discrimination and Retaliation Act of 2002

[No Fear Act](#)
★★★★★
nwtp.nterlearning.org



Home Energy Scoring Tool - Qualified Assessor Training

[Home Energy Scoring Tool - Qualified Assessor Training](#)
★★★★★
weatherization-nwtp.nterlearning.org



BestPractices Steam End User Training

[BestPractices Steam End User Training](#)
★★★★★
nwtp.nterlearning.org



Information Systems Security Awareness Training

[Information Systems Security Awareness Training](#)
★★★★★
nwtp.nterlearning.org



Building Science Animations

[Building Science Animations](#)
★★★★★
nwtp.nterlearning.org



House as a System Learning Exercise in 3D - Demo

[House as a System Learning Exercise in 3D - Demo](#)
★★★★★
nwtp.nterlearning.org



Hazards and Response - Demo

[Hazards and Response - Demo](#)
★★★★★
nwtp.nterlearning.org



Appropriations Law

[Appropriations Law](#)
★★★★★
nwtp.nterlearning.org



Drivers Overview Training

[Drivers Overview Training](#)
★★★★★
nwtp.nterlearning.org



UMass Dartmouth Energy Auditing

[UMass Dartmouth Energy Auditing](#)
★★★★★
weatherization-nwtp.nterlearning.org



3D assets for reuse - Blower Door Basics

[3D assets for reuse - Blower Door Basics](#)
★★★★★
weatherization-nwtp.nterlearning.org



Blower Door Basics - Beta

[Blower Door Basics - Beta](#)
★★★★★
weatherization-nwtp.nterlearning.org



Welcome to NTER Authoring Training

[Welcome to NTER Authoring Training](#)
★★★★★
nwtp.nterlearning.org



Attic Air Sealing Beta Version Desktop

[Attic Air Sealing Beta Version Desktop](#)
★★★★★
weatherization-nwtp.nterlearning.org



Steam System Tool Suite Training

[Steam System Tool Suite Training](#)
★★★★★
nwtp.nterlearning.org



Mechanical Insulation Education & Awareness - Alpha

[Mechanical Insulation Education & Awareness - Alpha](#)
★★★★★
weatherization-nwtp.nterlearning.org



Carbon Monoxide Worst Case Draft (CAZ) Testing

[Carbon Monoxide Worst Case Draft \(CAZ\) Testing](#)
★★★★★
weatherization-nwtp.nterlearning.org



Building Science Basics

[Building Science Basics](#)
★★★★★
weatherization-nwtp.nterlearning.org

•White House Announcements:

- Announced at the White House by Deputy Secretary Daniel B. Poneman, April 27, 2011
- Included in Presidential Announcement on Advanced Manufacturing Initiative, June 24, 2011
- Announced by Vice President Biden and Secretary Solis as included in the Round Two TAA Grants, February 24, 2012
- Included in Presidential Announcement to make Broadband Construction Faster and Cheaper, June 14, 2012

•Other NTER Recognition:

- Included in the DOE Strategic Plan, May 2011
- Endorsed by the Manufacturing Institute to train 500,000 manufacturing workers by 2016, June 24, 2011

•NTER Awards:

- The Leadership Award for Service to the Citizen by The Association for Federal Information Resources Management (AFFIRM) on June 9, 2011
- The Innovation Gold Medal in Division I was awarded at the Fall Chief Learning Officer Symposium on October 14, 2011
- Institute Honor Award presented by the National Institute of Building Sciences (NIBS) for “an exceptional contribution to the nation and the building community” on December 7, 2011
- Secretarial Achievement Award presented to Michelle Fox and Alex Cohen by Secretary Chu on March 23, 2012 for improving the professional development of our federal workforce
- Fierce Government Award on December 2012



The WHITE HOUSE | PRESIDENT BARACK OBAMA | THE BRIEFING ROOM | BLOG | PHOTOS & VIDEO | BRIEFING ROOM | ISSUES | Home | Briefing Room | Statements & Releases | The White House | Office of the Press Secretary | For Immediate Release | President Obama Launches Advanced Manufacturing Partnership | June 24, 2011

Today, at Carnegie Mellon University, President Obama launched the Advanced Manufacturing Partnership (AMP), a national effort bringing together industry, universities, and the federal government to invest in the emerging technologies that will create high quality manufacturing jobs and enhance our global competitiveness. Investing in technologies, such as information technology, biotechnology, and nanotechnology, will support the creation of good jobs by helping U.S. manufacturers reduce costs, improve quality, and accelerate product development.

The President's plan, which leverages existing programs and proposals, will invest more than \$500 million to jumpstart this effort. The President believes that even as we live within our means, we must invest to win the future. Investments will be made in the following key areas: building domestic manufacturing capabilities in critical national security industries; reducing the time needed to make advanced materials used in manufacturing products; establishing U.S. leadership in mid-generation robotics; increasing the energy efficiency of manufacturing processes; and developing new technologies that will dramatically reduce the time required to design, build, and test manufactured goods. Leading universities and companies will complement these federal efforts helping to invent, deploy and scale these cutting-edge technologies.



2011
CHIEF LEARNING OFFICER
Learning In Practice
Awards

ATEGIC PLAN
MAY 2011

The Innovation
Award

FierceGovernmentIT

Through NTER, you gain:

- A modern, open source, free, award-winning, fully functional LCMS that can facilitate sharing of open educational resources
- Shared expertise through open source community
- Access to massive repository of high quality online educational materials
- Potential for additional revenue stream through NTER
- Improved options for selling online courses and reaching larger audiences
- Easy authoring for enhanced online immersive courses

- DOE's Energy Technology Programs (Solar, Vehicles, Advanced Manufacturing,/Industrial Technologies, Federal Energy Management Programs)
- Other DOE Offices: Health, Safety and Security, Office of Electricity.
- National Labs: LBL, NREL, PNNL, INL
- Advanced Manufacturing Initiative: National Association of Manufacturer's Manufacturing Institute; Ford's Partnership for Advanced Studies; MAGMA (representing the big 3 automakers); Macomb Community College
- The Center for Energy Workforce Development: Troops to Energy Jobs
- A significant number of the winning applicants in the Department of Labor's Trade Adjustment Act (\$2 BN solicitation--\$1BN awarded)
- Department of Defense
- 6 Weatherization Centers
- Under consideration by 4 other cabinet level agencies and an emergency response training center

Options for getting started

- **Consume:** Sign up for an account and take a course. It's free.
- **Adopt:**
 - Conduct a 90 day pilot (rapid deployment option available)
 - Create a course
- **Integrate:** Leverage NTER or parts of NTER for your own mission objectives; integrate your legacy materials for wider reach.
- **Governance:** Help us direct the future of NTER along with the private sector.

- DOE's Energy Technology Programs (Solar, Vehicles, Advanced Manufacturing,/Industrial Technologies, Federal Energy Management Programs)
- Other DOE Offices: Health, Safety and Security, Office of Electricity.
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Thank You



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