

Technical Implementation of Adaptive Learning

Experiences and Lessons Learned

Bruce Richards and Jeff Meier, CTL





Who are we?

Bruce E. Richards, Ed.D.



Senior Instructional Technologist
Kennedy 209
bricha44@uncc.edu

Bruce is the Senior Instructional Technologist in CTL in instructional support of faculty teaching and learning. His interest is in exploring how existing and emerging learning technologies can be used to enhance the successful transfer of knowledge for student and teacher alike. This position as a Senior Instructional Technologist offers Bruce the opportunity to put into practice the practical application of cognition, educational psychology, information technology, graphic and web design, and problem solving; all leading to the intentional use of technology in teaching and learning for student success. His goal is to apply the lessons of instructional design towards coaching and instructing faculty in the use of instructional technology in online, blended, and face-to-face environments.

Jeff Meier



Tech Team Manager
Kennedy 208
jmeier@uncc.edu

Jeff serves as the manager of the CTL technical systems team, with responsibilities for the university's Learning Management System and our other enterprise academic technologies. He brings a broad array of leadership skills and experiences to this position, ranging from the U.S. Air Force to his latest work at Lowes Corp. These experiences enable him to develop innovative solutions to challenges with an eye on increasing effectiveness and customer satisfaction.



Description

Higher education institutions are **challenged to identify specific adaptive learning platforms** and services that support the development of adaptive learning courseware. **No single adaptive learning platform** is able to support all technical requirements.

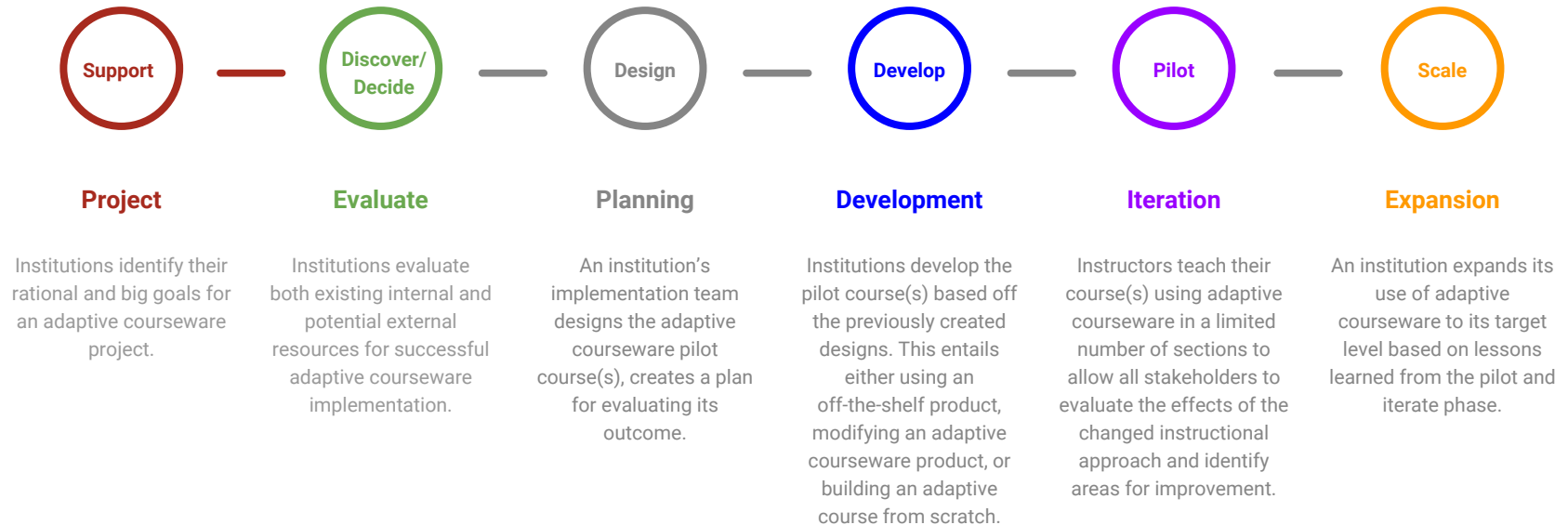
Instructional designers and IT professionals need to consider the **value each vendor's product provides** in support of adaptive teaching and learning methodologies.

This presentation provides project leaders and faculty with information critical to ensuring success for the **technical implementation of adaptive learning platforms**.



Project

APLU - Six Phases of Change



<http://www.aplu.org/news-and-media/News/aplu-releases-first-of-its-kind-guide-for-implementing-adaptive-courseware>

Path for Success - Training Model & Culture

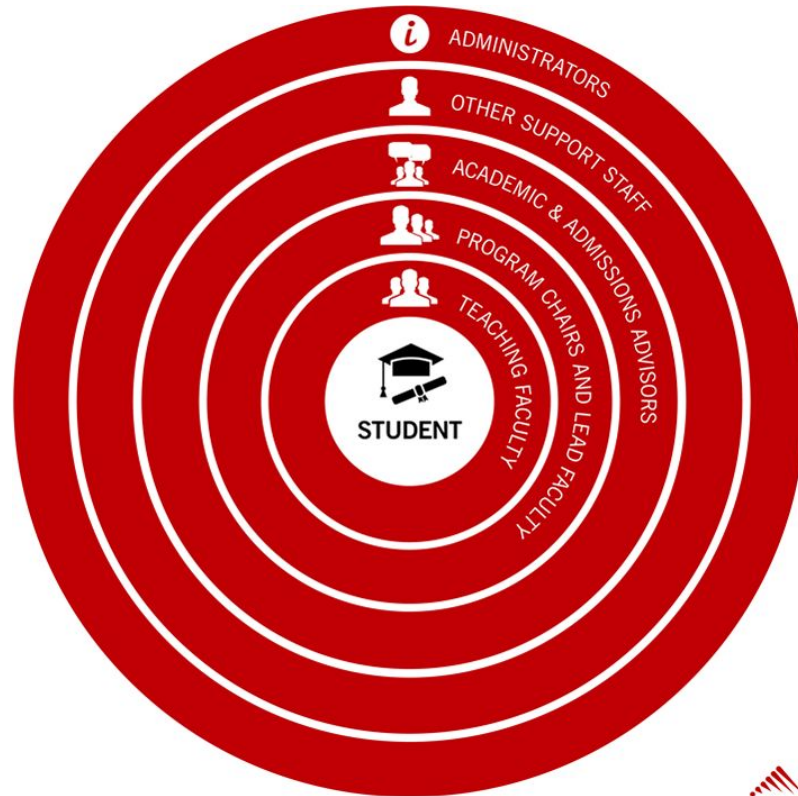


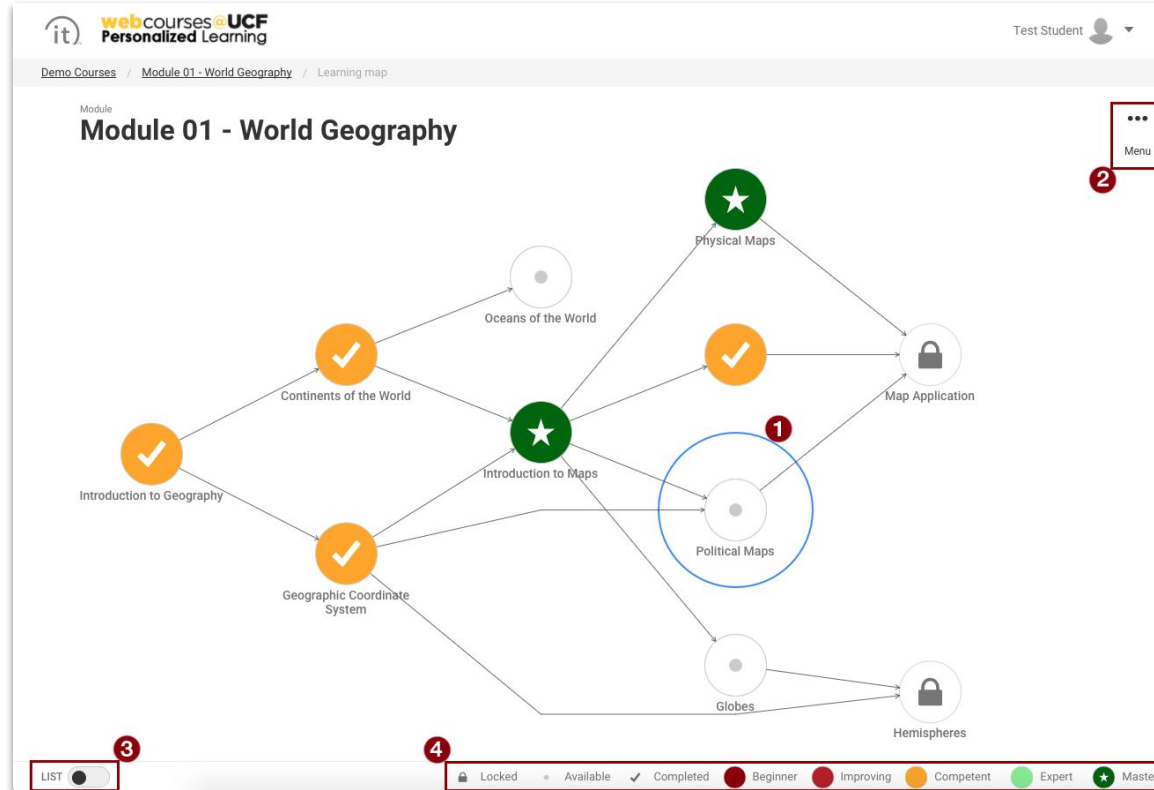
Figure 2. Colorado Technical University's model for adaptive learning training



Adaptive Learning Platforms



Realizeit Platform - Example



ALEKS Platform - Example

ALEKS[®] Core 4 - Algebra 1 2017-8

Mastered: 210 Learned: 30 Remaining: 201

Hi, Janna!

UP NEXT :

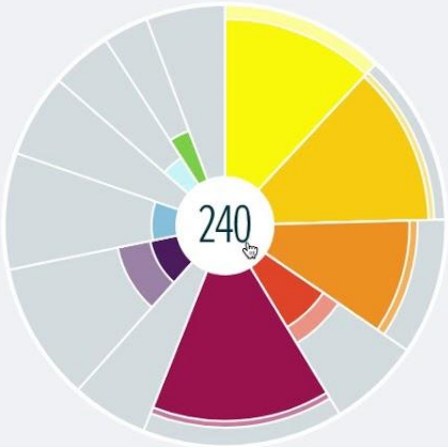
Ordering real numbers

CONTINUE MY PATH

WORKING TOWARD

ALEKS Weekly Growth Grade - 28
0 of 10 Topics
Due: Sunday 12:00 AM

Chapter 5 / Chapter 6 / Chapter 7 /
Chapter 8 / Chapter 9 / Chapter 10 /
Chapter 11 / Chapter 12
26 of 195 Topics
Due: May 30



Timeline ALEKS Pie

- Arithmetic Readiness (59 Topics)
- Real Numbers (63 Topics)
- Linear Equations (47 Topics)
- Linear Inequalities (27 Topics)
- Functions and Lines (76 Topics)
- Linear Systems (20 Topics)
- Exponents and Exponential Functions (48 Topics)
- Polynomials and Factoring (20 Topics)

Calendar ALEKS Pie Detail

© 2018 McGraw-Hill Education. All Rights Reserved. Terms of Use | Privacy



Process



Process

Here is what we did to engage an adaptive vendor:

- Created an RFP to identify potential vendors
 - This was done to comply with state procurement process
- Sagece, Barnes and Noble, Cogbooks and RealizeIT replied to the RFP
- Invited top 2 vendors to do an onsite presentation - RealizeIT was the “winner”
- Contracted with RealizeIT
- Created 3 “pilot” courses
- Vendor conducts weekly update meetings with faculty, CTL and technical resources

External Tool Integrations

- Any LTI-enabled tool can work with RealizeIT
- Currently have zyBooks and Matlab integrated with RealizeIT
- ALEKS is also integrated into courses via an LTI



Process

Two types of adaptive platforms in this space

- Ready-made (experience)
 - eBook vendors' products, no development required - for example
 - McGraw-Hill ALEKS
 - Pearson
 - Cengage
- Full development (experience)
 - This can be labor-intensive depending on the course content
 - Creates a situation where the faculty can really better define course content and see where there may be gaps
 - Initial investment in time can be substantial
 - Recommend a two semester development timeline before going live, although we did it a lot faster (less than 6 months)
 - Create test student accounts so you can emulate the student experience
 - Create a schedule for any potential course refreshes to prevent issues



Summary



Summary - Observations

Awareness and Training for all stakeholders

Communication (students)

- Especially around the process, as it requires specific steps to work properly

Know what is important in the use of adaptive learning courseware: Is it learning or grades?

Learning Analytics

Create “test” student accounts in the course to allow for adequate review of content

Implementation and Feedback

Learning Analytics: -

“measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs.”

