


Drupal + Moodle for Blended Social Learning

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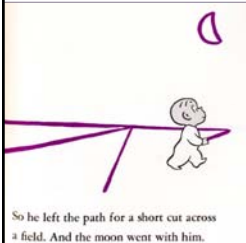
Proposed:

- **Every University and College Needs....**
 1. **Learning Management System:** keeps track of assignments, resources, tasks, submissions, grades – provides value to students for tuition)
 2. **Learning Content Management System:** access permissions, import/export/archiving, global changes, copyright, INDEXING, LINKING – adds value to faculty content development in course and publication context)
 3. **Social Learning Environment:** supports, encourages group activity that connects to course content and results in deeper learning – extends teaching quality to the online face of the school)
 4. **Academic Social Network:** builds and leverages connections between members (students, faculty, support staff, alumni, etc.) outside of course contexts.

Intranet Alphabet Soup

- Blended and Online Learning wants an adopted, supported **Social Learning Environment (SLE)**
- Social Learning Environments in higher education are part of a **Multiple Site Architecture:**
 - **SMS:** (manage the business) e.g LDAP
 - **LMS:** (manage individual learning) e.g. ~~Angel~~, Moodle, **Drupal**
 - **LCMS:** (manage content) e.g. Drupal (**Open Scholar, ELMS**)
 - **SLE:** (manage group learning) e.g. Mix 'n Match, **Drupal (EduGlu, Voicebox)**
 - **SN:** (academic community social network) – Elgg, **Drupal Commons**

Outline



So he left the path for a short cut across a field. And the moon went with him.

1. **The Context:**
 - Rapid growth of online learning but institutional difficulty with changes (pedagogy, support, organization culture)
 - Concerns about online learning quality
 - Adoption of blended learning – currently by “pioneers” and “early adopters” using “mix ‘n match tools that don’t transfer well or help instructors evaluate and guide.
 - Outgrowing the LMS – it’s impossible to design one intranet environment to do everything, well, easy to get stuck in an old tool.
2. **The Opportunity:**
 - Design campus-wide learning intranets (LCMS and SLE) to help adopt best practices and improve learning and teaching to match brand quality.
3. **The Pitch:**
 - Drupal’s purple crayon supports change without platform swapping. It can be supported by students, who become IT staff. These same students can help professors do better DL and BL with Drupal as a SLE.
 - Drupal has distributions already built and supported to do this job, ready to be customized and helped.
4. **Snapshots:** Today’s Drupal Distributions.
 - Open Scholar (faculty-centered LCMS)
 - ELMS (course-centered LCMS)
 - EduGlu (course-based SLE)
 - Drupal Commons (Academic Social Network)
5. **Next Steps:**
 - Organize Your Free Local Talent: tech-savvy students are joining Drupal User Groups and attending DrupalCamps.
 - Let’s collaborate using Open Atrium.

The Context: Rapid Growth of Online Learning

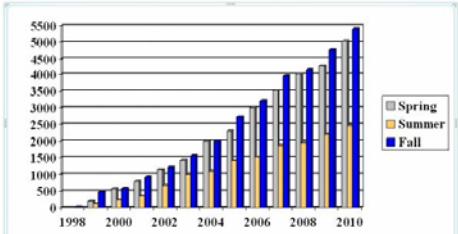


Rapid Growth of Online Learning

The Context: Rapid Growth of Online Learning

Up 17% (Chronicle), 21% (Sloan)

UIS Online & Blended Enrollment



| Year | Spring | Summer | Fall |
|------|--------|--------|------|
| 1998 | 100 | 100 | 100 |
| 2000 | 200 | 200 | 200 |
| 2002 | 400 | 400 | 400 |
| 2004 | 800 | 800 | 800 |
| 2006 | 1500 | 1500 | 1500 |
| 2008 | 2500 | 2500 | 2500 |
| 2010 | 4000 | 4000 | 4000 |

<http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolume/SustainingStudentsRetentionStr/219104>

The Context: Rapid Growth of Online Learning

Why the Growth?

- **Improving student access** is the most often cited objective. Cost reduction is not seen as important.
- Institutions that are the most engaged in online education cite **increasing the rate of degree completion** as a very important objective.
- The appeal of online instruction to **non-traditional students** is indicated by the high number of institutions which cite growth in continuing and/or professional education as an objective for their online offerings.

http://sloanconsortium.org/publications/survey/online_nation

The Context: Rapid Growth of Online Learning

Response to Growth?

- Almost **two-thirds of for-profit institutions** now say that online learning is a critical part of their long term strategy.
- The **21% growth rate for online enrollments** far **exceeds the 2% growth** in the overall higher education student population.
- Three-quarters of institutions report that the **economic downturn has increased demand for online courses and programs.**

The Context: Quality Control in Online Learning

How is it going?

Chronicle, 8/31/09:
 “[Professors] worry about the quality of online courses, say **teaching them takes more effort**, and grouse about **insufficient support**....
70 percent of all faculty members believe the learning outcomes of online courses to be **either inferior or somewhat inferior, compared with face-to-face instruction.**”

Quality Guidelines Repository:
<http://depd.wisc.edu/html/quality3.htm>

The Context: Quality Control in Online Learning

Why it's hard to do Online Teaching well...

The Context: Quality Control in Online Learning

Social Learning Theories

- Exstruction (Behaviorism – Gagné)
- Instruction (Cognitivism - Piaget)
- Construction (Constructivism - Vygotsky)
- Superstruction (Connectivism – Siemens)
- Social Construction (SC-ism - Searle)
- *Obstruction (Techno-centrism that leaves the learning behind)*

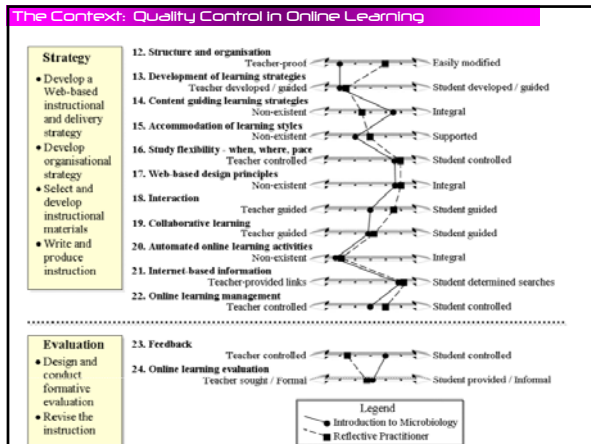
http://www.patsula.com/usefo/webbasedlearning/tutorial/learning_theories_full_version.htm - Tutorial

The Context: Quality Control in Online Learning

IDOL Model – So Many Choices!

Instructional design for online learning (IDOL) model for higher education

| Analysis | 1. Underlying pedagogical philosophy | 2. Instructional design analysis | 3. Content provided | 4. Student motivation | 5. Unit information / Delivery mode | 6. Lecturer's role / availability | 7. Lecturer's perception of importance | 8. Lecturer's online abilities | 9. Lecturer's online support / training | 10. Lecturer's decision-making input | 11. Lecturer's development activities |
|---|--------------------------------------|----------------------------------|----------------------------------|-----------------------|-------------------------------------|-----------------------------------|--|--------------------------------|---|--------------------------------------|---------------------------------------|
| • Analyse learners | Instructivist / Behaviourist | Sharply-focused | Linear / Totally provided | examines | Supplemental to face-to-face | Scheduled regularly / Didactic | Inconsequential | Novice | Non-existent | Non-existent | Non-existent |
| • Analyse the pedagogical approach / philosophy | Constructivist/Cognitive | Unfocused | Non-linear / Student constructed | intuitive | Delivery entirely online | Student requested / Facilitative | Integral | Expert | Readily available | Integral | Integral |
| • Analyse the learning context | | | | | | | | | | | |
| • Analyse the instructional goal | | | | | | | | | | | |
| • Analyse the role of the educator | | | | | | | | | | | |



The Context: Quality Control In Online Learning

Table 2

Skills Needed to Teach Online in 2010

| Response Options | Number of Respondents | Response Rate (%) |
|----------------------------------|-----------------------|-------------------|
| Course developer | 355 | 66.4 |
| Facilitator or moderator | 352 | 65.8 |
| Subject-matter expert | 298 | 55.7 |
| Instructor or lecturer | 273 | 51.0 |
| Student counselor or advisor | 193 | 36.1 |
| Technology Trainer | 162 | 30.3 |
| Program coordinator or developer | 153 | 28.6 |
| Other | 17 | 3.2 |
| Subtotal | 535 | 96.4 |
| No response | 27 | 3.6 |
| Total | 562 | 100.0 |

The Context: Quality Control In Online Learning

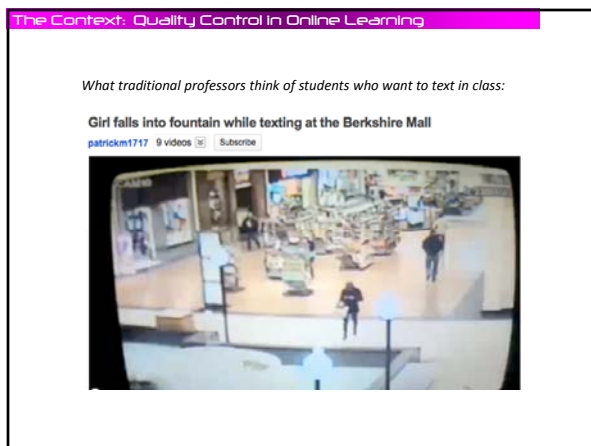
Old Roles

- **Academics**
 - Discover new knowledge & representations
 - Sustain knowledge communities
- **Trainers**
 - Train students in necessary literacy skills.
 - Train students in necessary social skills.
 - Train students in necessary technical skills
- **Pedagogues**
 - Share representations of knowledge.
 - Help students internalize knowledge.
- **Mentors**
 - Guide students to create new knowledge.
 - Guide students to knowledge communities.

The Context: Quality Control In Online Learning

New Roles

- **Educational Technologists**
 - Create and customize multimedia
 - Create and customize learning environments
- **Instructional Designers**
 - Match content, students, context and tools
 - Match activities to learning theories
- **Online / Blended Instructors**
 - Present syllabus and content and manage students
 - Check for understanding and provide feedback
- **Online Facilitators**
 - Keep individuals on task and engaged
 - Provide group comment and support



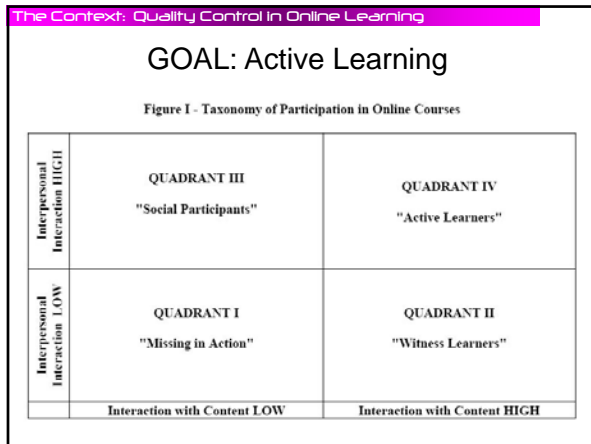
The Context: Quality Control In Online Learning

The LMS Turing Test

Are your students **humans** or **zombies**?

- Are they are interested? **How do you know?**
- Do they **understand** your material?
- **Who do you blame?**
 - The Lack of Support for Difficult Tools
 - The New ADD Generation....

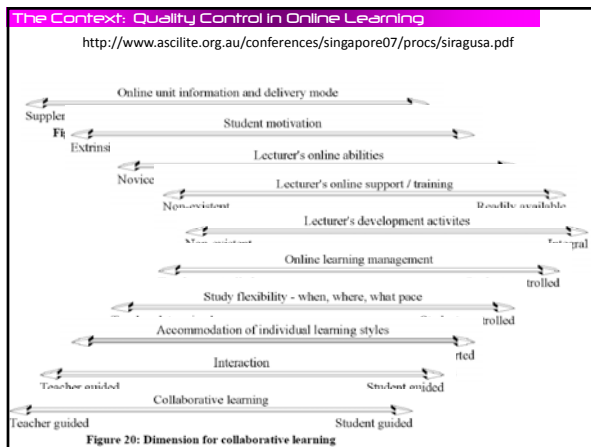
Can they tell if YOU'RE human?



The Context: Quality Control In Online Learning

Table 3
Pedagogical Techniques to Be Used More Widely Online in the Coming Decade

| Response Options | Number of Respondents | Response Rate (%) |
|---|-----------------------|-------------------|
| Group problem-solving and collaborative tasks | 356 | 65.4 |
| Problem-based learning | 316 | 58.1 |
| Discussion | 237 | 43.6 |
| Case-based strategies | 228 | 41.2 |
| Simulations or role play | 198 | 36.4 |
| Student-generated content | 190 | 34.9 |
| Coaching or mentoring | 162 | 29.8 |
| Guided learning | 155 | 28.5 |
| Exploratory or discovery | 147 | 27.0 |
| Lecturing or teacher-directed activities | 60 | 11.0 |
| Modeling of the solution process | 49 | 9.0 |
| Socratic questioning | 47 | 8.6 |
| Subtotal | 544 | 98.0 |
| No response | 18 | 2.0 |
| Total | 562 | 100.0 |




- The Context: Quality Control In Online Learning
- Development of learning strategies
Teacher developed / guided Student developed / guided
- Figure 15: Dimension for the development of learning strategies
- Instructional design decisions can **encourage different learning strategies** (Bull, Kimball, & Stansberry, 1998; Smith & Ragan, 2005).
 - A lecturer with a **first year students** may encourage students to **work collaboratively in finding specific information on the Internet and report their findings to the rest of the class** via the bulletin board.
 - Students may also be encouraged to **share their thoughts regarding the content** and assignments via communication facilities.
 - Students may be encouraged to **interact with each other through online chat** while solving particular problems.
 - A lecturer with **postgraduate students** may encourage them to **maintain a reflective journal [Blog]** to record their successes and barriers to their learning.
 - The lecturer may develop discrete strategies for **observing successful online learning strategies developed by students**.
 - Observational strategies may include **monitoring the bulletin board messages**.

- The Context: Quality Control In Online Learning
- Web-based design principles
Non-existent Integral
- Figure 14: Dimension for web-based design principles
- While developing an online learning environment, **sound web design principles** (e.g., Lynch & Horton, 2002) suited to the targeted audience need to be employed including self-intuitive navigation, page layouts, text usage, background colours and textures, compatibility with various computer configurations, and allowances for human disabilities.
 - A lecturer may require students to read particular passages of text from web pages before completing an online interactive activity. The design characteristics of web pages need to conform to **appropriate design guidelines for suitable viewing on the web**.
 - The employment of graphics, animations and Flash-programmed activities need to be considered in order to **reduce the amount of unnecessary text** needed to describe a particular concept, while accommodating varying conditions including slow connection speeds.

- The Context: Quality Control In Online Learning
- <http://www.educase.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolume/TheFutureOfOnlineTeachingandle/157426>
Kyong-Jee Kim and Curtis J. Bonk
- **"Collaboration, case learning, and PBL are likely to be the preferred methods of online instructors**, with few relying solely on traditional methods.
 - The continued explosion in online learning will bring increased attention to **how to moderate or mentor with online learning**.
 - In addition, our study indicates that postsecondary institutions are finally focusing on **how online learning can develop student collaboration and evaluation skills**.
 - Most now see the potential of the **Web as a tool for virtual teaming or collaboration, critical thinking, and enhanced student engagement**, though not necessarily as a tool for creative and individual expression.
 - **Do current CMSs provide tools to realize the potentials of the Web for innovative teaching and learning?**
 - **Perhaps recent developments in open source courseware will force CMS vendors to develop more pedagogically engaging tools and resources.**
...OR PERHAPS COLLEGES WILL ADOPT OPEN SOURCE! [MBM]

The Context: Outgrowing the LMS

What's the best tool for this job?



One that supports the things professors need but isn't hard for a professor to learn.
One that encourages students to contribute, communicate and collaborate.
Ore maybe more than one....

The Context: Outgrowing the LMS

An LMS needs a LCMS

- <http://moodle.org/mod/forum/discuss.php?d=65417>

| | LMS | LCMS |
|--|--|---|
| Primary target users | Training managers, instructors, administrators | Content developers, instructional designers, project managers |
| Provides primary management of... | Learners | Learning content |
| Management of classroom, instructor-led training | Yes (but not always) | No |
| Performance reporting of training results | primary focus | Secondary focus |
| Learner collaboration | Yes | Yes |
| Keeping learner profile data | Yes | No |
| Sharing learner data with an ERP system | Yes | No |
| Event scheduling | Yes | No |
| Competency mapping - skill gap analysis | Yes | Yes (in some cases) |
| Content creation capabilities | No | Yes |
| Organizing reusable content | No | Yes |
| Creation of test questions and test administration | Yes | Yes |
| Dynamic pre-testing and adaptive learning | No | Yes |
| Workflow tools to manage the content development process | No | Yes |
| Delivery of content by providing navigational controls and learner interface | No | Yes |

The Context: Outgrowing the LMS

Outgrowing the LMS?

- Historically education was overly focused on **trying to put knowledge into a learners head**. Information is available online now (connectivism), so focus can shift to higher order thinking (social constructivism).
- LMS's block modern instincts when they **lock course content away** where most students will never access it because they're no longer enrolled at the time they need it.
- Conflict between SLE (**facilitate social interactions, manage student participation in learning activity**), and LMS (**need to convey required information and manage student participation in the course**)
- The LMS must move from the centerpiece that it has become over the last 10 years to a component on the fringe. Instead our primary question is, **what needs to be taught in a structured fashion (LMS), what content should be made available at point of need (LCMS), and what activity best suited for collaborative learning (SLE).**

Paraphrase from Linked-In, "Instructional Design & E-Learning Professionals"

The Context: Outgrowing the LMS

LMS SWOT Analysis

| | |
|---|--|
| <p>Strengths</p> <ul style="list-style-type: none"> Well accepted. Provide a central and manageable system for both online and offline training. Capable of integrating with the workflow. Capable of integrating with other existing systems. Well evolved activity reporting. Excellent for course management, delivery and tracking of formal learning. | <p>Weaknesses</p> <ul style="list-style-type: none"> Focused on control and managing more than learner experience. Most not ready for Web 2.0 experience and offer outdated course interface. Focused on formal learning to be pushed to learners. Varied and fragmented suppliers pool with differing technical and functional capabilities. |
|---|--|


The Context: Outgrowing the LMS

LMS SWOT Analysis

| | |
|--|---|
| <p>Opportunities</p> <ul style="list-style-type: none"> Social and Informal learning trends. Create new versions with learner-centric environments rather than centralized course delivery system by providing the tools and revamping the whole learner experience. <p>http://www.upsidelearning.com/blog/index.php/2010/06/16/</p> | <p>Threats</p> <ul style="list-style-type: none"> Fragmented market. Only a few LMS systems respond to the changing dynamics of the market. Social networking tools. Tools focused on providing a networked environment to learners and allowing them to share content, opinions and information with each other are taking over some of the LMS functionality posing a new competition. |
|--|---|


The Context: Outgrowing the LMS

MOODLE IS EVOLVING: 2.0, X



<http://www.edugeekjournal.com/2010/10/18/is-moodle-going-down-the-path-of-open-social-learning/>

"Embedded below is an interesting interview with Martin Dougiamas, founder of Moodle. Moodle 2.0 will have a feature that lets you pull in existing blog entries from your own blog that are tagged with a specific tag (31:45).




Dougiamas also talks about the future of Learning Management Systems and Moodle starting at the 32 minute mark. He mentions that there will most likely be a new version of Moodle ("Moodle X" he calls it) that will be a totally new program (not just Moodle 3.0) built from the ground up, centered around the student.

The Opportunity: Multiple Intranets (LMS, LCMS, SLE, SN)

The spaces we work in affect the ways we work together.


- The **standard corporate office layout** (worker cubicles, corner offices, executive suites) reflects a hierarchic, specialized form of organization.
- **Can you change how people work together by changing architecture?**
How about by changing intranet architecture?



The Opportunity: Multiple Intranets (LMS, LCMS, SLE, SN)


How does the layout of the MIT Stata Center accommodate different labs and groups occupying the same space?

- “There is a defined area for each lab group, and within each of them are open **communal spaces that are really effective.**
- They facilitate interactions very easily -- it feels natural for all of us to eat lunch together, and there is a sense of **openness and collaboration that wouldn't necessarily be the case if we were placed in any other rigid, boxy research building.**
- The **group dynamic** is really great.”



<http://www.dwell.com/articles/i-live-in-a-frank-gehyr.html>

The Opportunity: Multiple Intranets (LMS, LCMS, SLE, SN)

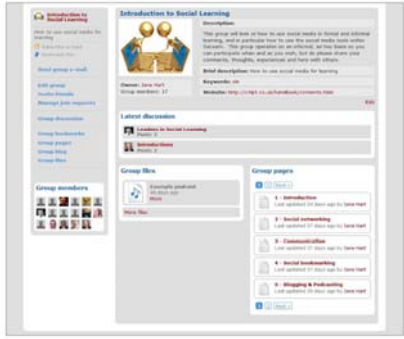


Christopher Alexander “The Timeless Way of Building”

- **Architectural Tao**
 - Form Follows Function: Performance
 - Form Fits Environment: Sustainability
- **Design Implications**
 - Tao + Social Convention + Innovation = Design
 - Cultural Health: Convention aligned with Tao
 - Innovations that block convention? (*)
 - Innovations that block Tao? **LMS**

The Opportunity: Multiple Intranets (LMS, LCMS, SLE, SN)

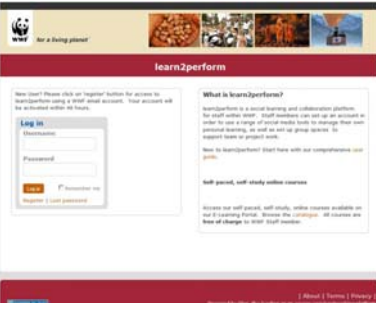
“Home” for an Authenticated User.



This ELGG screenshot is offered as an interface example as a comparison to what an LMS course page looks like.

The Opportunity: Multiple Intranets (LMS, LCMS, SLE, SN)

Portals, not Login Screens!




This is a login page, not a portal page...it carries “branding weight” but does not encourage any exploration beyond authentication to access one's courses.

If a portal page can encourage users (professors and students) to access emerging resources, projects and communities, that “Atrium” should be a focus of new design.

The Opportunity: Multiple Intranets (LMS, LCMS, SLE, SN)

What should the Portal look like?



This portal page is from a custom-built intranet for the University of East London.

Even when not authenticated, users can see new content to encourage them to explore what else is going on, besides their enrolled courses and friended classmates & colleagues.

The Opportunity: Multiple Intranets (LMS, LCMS, SLE, SN)

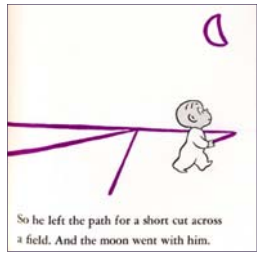
“Features of Great Intranets”

http://www.useit.com/alertbox/intranet_design.html - Jakob Nielsen's Alertbox

- **Knowledge sharing.** Repositories for case studies, samples, and other existing information can help people with similar problems.
- **Innovation management.** Users tools for taking ideas and improvements from conception to completion.
- **Comments.** The simplest way to inspire user-contributed intranet content is to let employees comment on existing information, ranging from news stories to knowledge bank resources. Commenting features reduce the fear of the blank screen. Systems that force people to create content from scratch every time inhibit user participation.
- **Ratings.** Giving a grade requires even less work than writing a comment, and thus rating systems can further broaden user participation. Sites that use ratings can list top-rated resources first in menus or give them added weight in search listings.
- **Participation rewards.** We know from research on social features that user participation increases when contributors are visibly rewarded, such as by adding points or badges to their profiles.
- **Customized content collection.** The default intranet information architecture (IA) must be based on the average user's tasks and usage patterns, but can never predict any individual user's information needs with 100% accuracy. To contend with this fact, designers often allowed users to customize content collections.

The Pitch: Drupal-Based SLEs

Some Arguments for Drupal



- **Purple Crayon!**
- **We Already Use It!**
- **Students Can Support it!**
- **Multicolored Crayon!**
- **OER & OSC Culture Match?**
- **Emerging Distributions!**
- **Local Distributions?**
- **Local “Features”?**
- **Sharing between intranet sites (LMS, LCMS, SLE, Public Site) is easy if all are Drupal.**

The Pitch: Drupal-Based SLEs

Drupal versions of these:

1. **Book Pages:** Sections of pages in sequence, with menus, able to be printed singly or together as sections in PDFs.
2. **Panel Pages:** Landing pages that associate users and content types with a class project.
3. **Custom Content Types:** faculty-defined content types that support particular activities in their courses.
4. **User Roles:** Create review & support opportunities for graduate students.
5. **Web Forms:** “Worksheets” for work submission with file attachments and spreadsheets to show who completed what when.
6. **Comments:** Discussion threads easily accessed and used, revealed through “similar content” “popular content” and “latest post” blocks.
7. **Private Messages:** Enables communication between teacher and students within course context (easier to manage).
8. **Polls, Five-Star Ratings,** etc: other options for guiding and evaluating sustaining communication and collaboration in a class context.

The Pitch: Drupal-Based SLEs


Starting with a Drupal “Distro”

- There are many Drupal distributions, some built with partner supported and sporting large user bases:
<http://blog.merge.nl/2010/12/02/drupal-distributions>
- Let's look at some useful starting points for Higher Ed.

Snapshot: Today's Drupal Distributions for Higher Ed

Academic Social Network: Drupal Commons

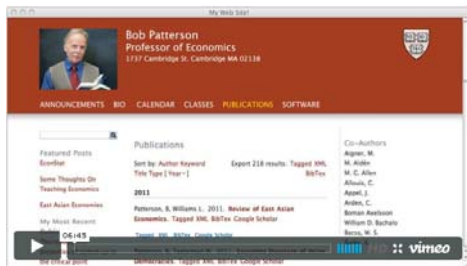
- <http://acquia.com/products-services/drupal-commons>
- Jay Batson, Project Lead [[podcast](#)]
- Potential: social networking environment for all students (not by course registrations)



Community Powered Innovation

Snapshot: Today's Drupal Distributions for Higher Ed

What's “Home” for a Professor? Drupal LCMS: Open Scholar



<http://openscholarsb.prod.acquia-sites.com>


Snapshot: Today's Drupal Distributions for Higher Ed

Open Scholar Features

| | | | | |
|---|-----------------------|---|-----------|--------|
| ✓ | project front | Adjust front page settings for your web site | customize | Public |
| ✓ | project custom pages | Create basic web pages for your web site | customize | Public |
| ✓ | project announcements | Create and manage announcements | customize | Public |
| ✓ | Scholar Events | Create and manage events on your web site | customize | Public |
| ✓ | project profiles | Manage a directory of contributors to your projects | customize | Public |
| | project publications | Create and manage announcements on releases (books or other media releases) | customize | Public |
| | project classes | Create and manage information on classes taught or otherwise relevant | customize | Public |
| | project image gallery | Create and manage galleries of published images | customize | Public |
| | project reader | Take content beyond from other sites on the internet, including post Twitter feeds, directly to your site | customize | Public |
| | project blog | Provide a simple blog functionality for your site | customize | Public |
| | project feeds | Create and manage content feeds to other sites that may be interested in your web site content | customize | Public |
| | Scholar Software | Create and manage information on your software projects | customize | Public |
| | scholar booklets | Create and manage booklets. A booklet is a set of pages that together is a brochure or pamphlet | customize | Public |
| | scholar history | Track and manage your contributions when we will be your biography | customize | Public |

Snapshot: Today's Drupal Distributions for Higher Ed

Another approach (from Penn State): Drupal LCMS: ELMS




- <https://elearning.psu.edu>
- Lead: Bryan Ollendyke, Btopro

Snapshot: Today's Drupal Distributions for Higher Ed

What's "Home" for a social learning group? Drupal SLE: Eduglu

- <http://eduglu.org>
- Join the development discussion:
<http://community.eduglu.com/development/node/137>
- Lead: Kyle Mathews



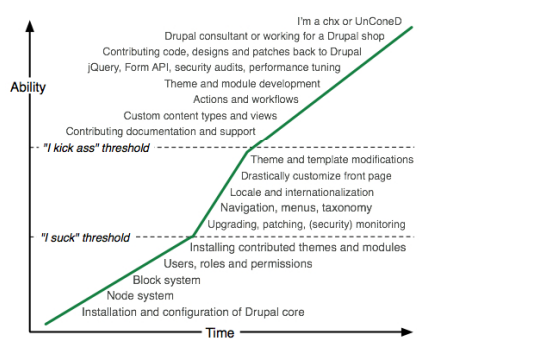
NEXT STEPS

Invite Students to Help!

- Help update content on public-facing sites
- Provide institutional support to student DUGs
- Recruit students to help develop PF sites
- Survey students about use of BL & DL
- Convene student focus groups for new SLE
- Support pilot SLE development between pioneer professors and students
- Present results at your next DrupalCamp!

NEXT STEPS

Students Learn Drupal Faster



NEXT STEPS

How do we get there from here?

- **Open Atrium**
 - **Blog:** Discuss the proposals, with expert feedback
 - **Wiki:** Create project plans as "Books"
 - **ToDo:** CaseTracker: who does what by when
 - **Calendar:** Plan and Hold Skype Meetings
- Our Open Atrium Instance:
<http://planning.empowered-teacher.com>
- Email: bram@empowered-teacher.com