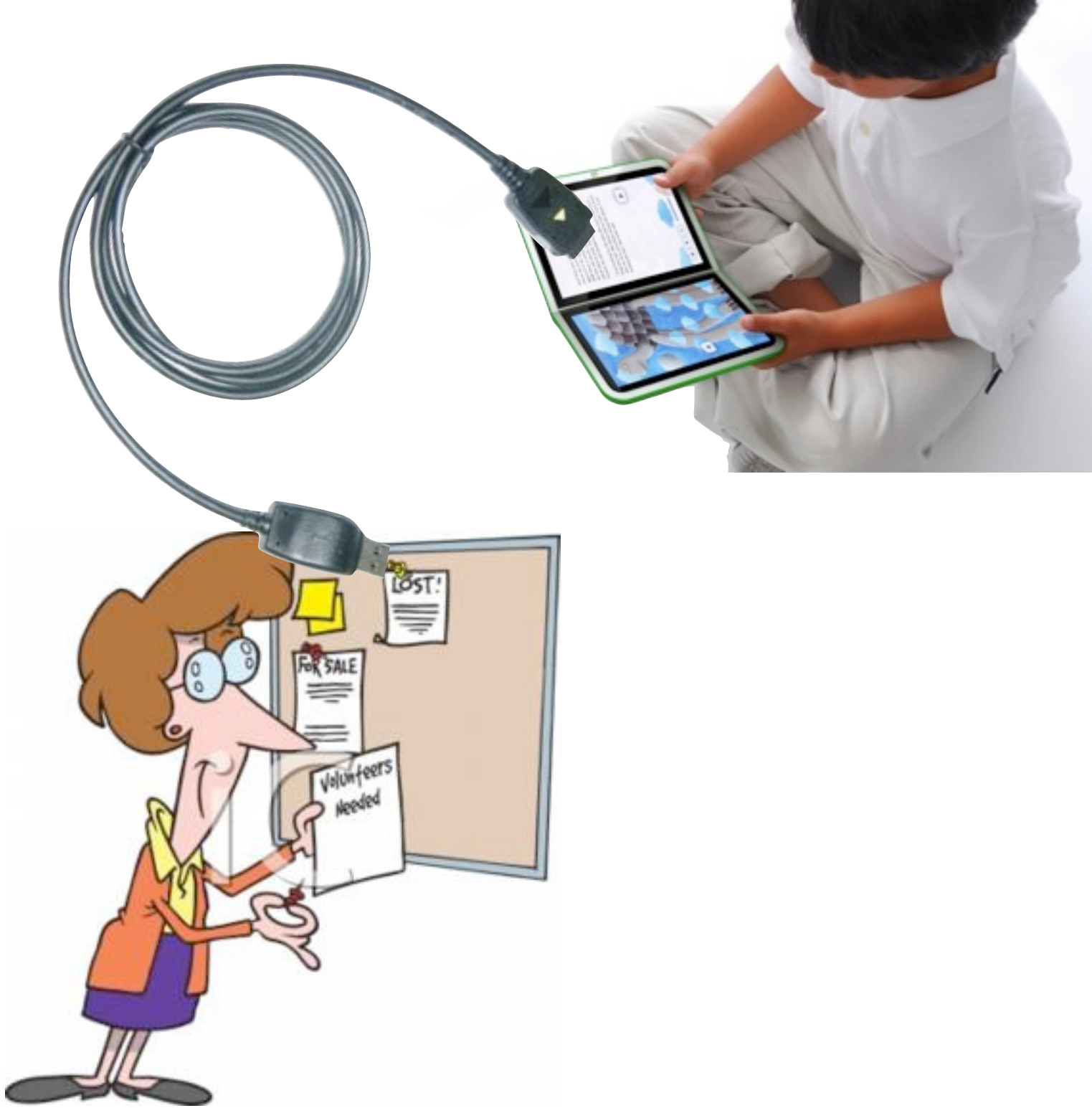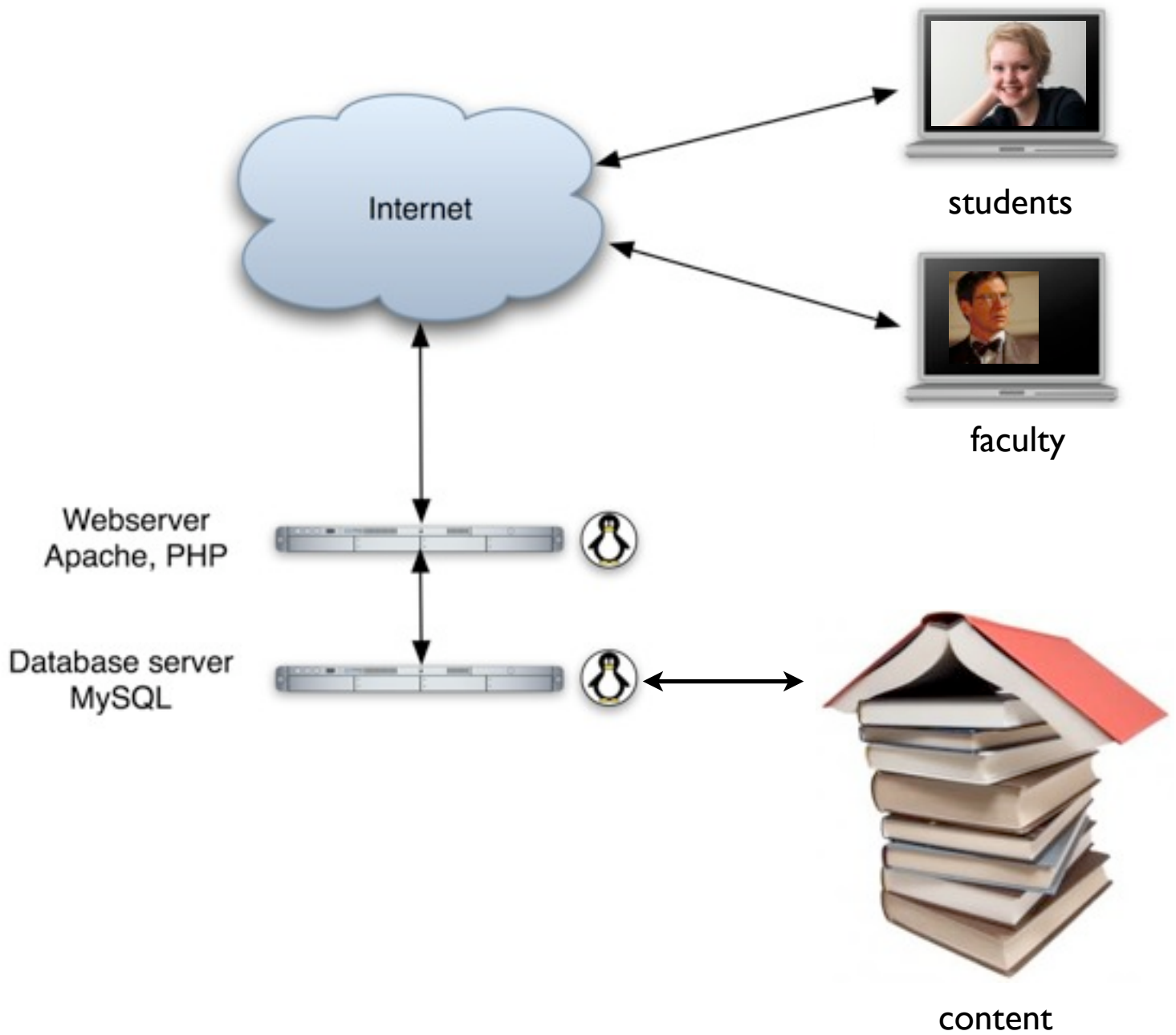# Learning Management Systems

What is a Learning Management System?
Few of them actually manage learning.

What most of them do is allow teachers to post their course materials, and students to access them, online.

Internet

students

faculty

Webserver
Apache, PHP

Database server
MySQL

content

They are essentially big databases running on your server that manage who has access to what content: who can post it there, and who can look at it.

Internet

students

faculty

Webserver
Apache, PHP

Database server
MySQL
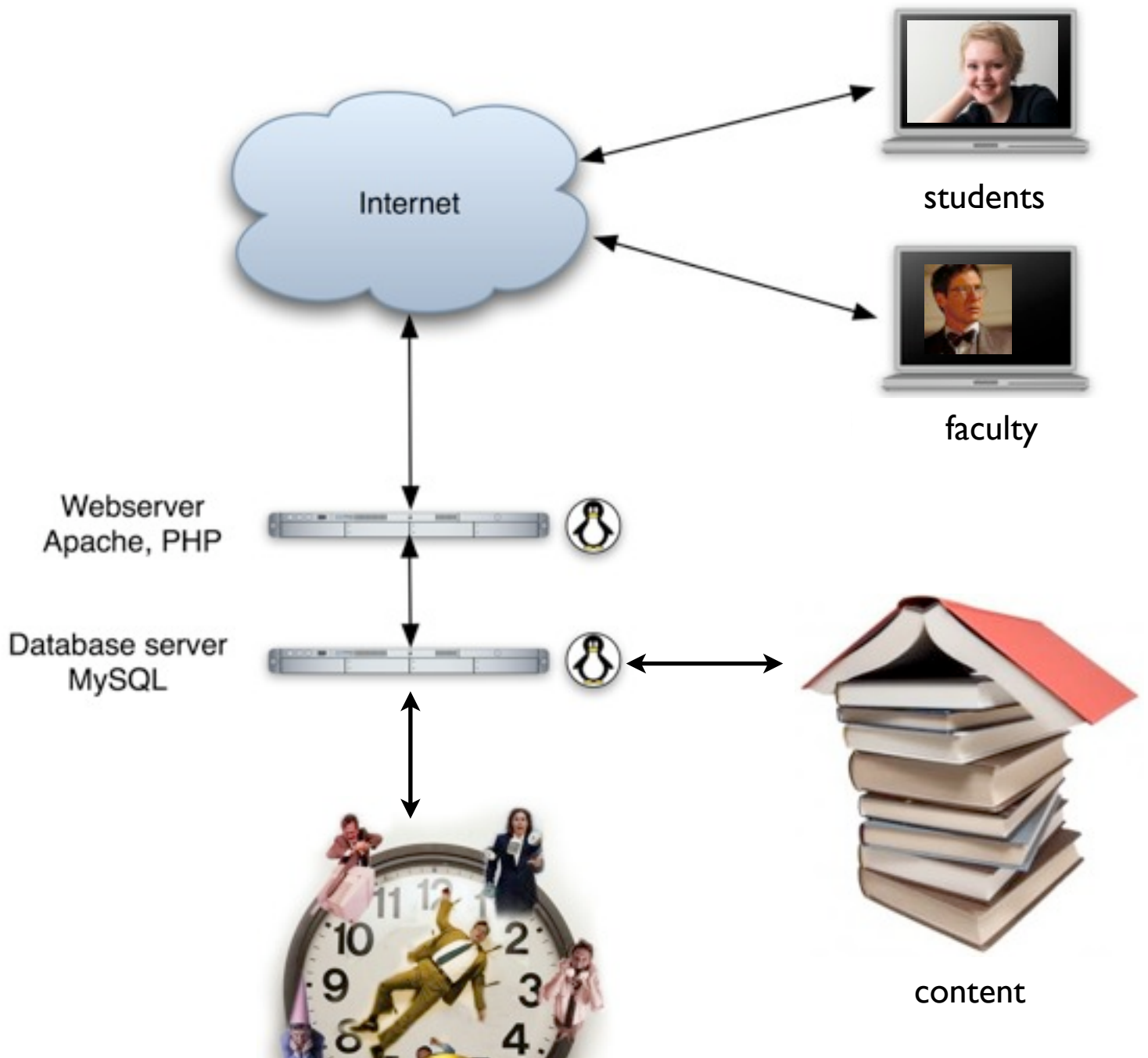
content

Many of them also keep track of who has looked at what, score simple quizzes, and allow students to submit assignments online.

content

LMSs do not provide content: that's done by the teacher, or by license from a major publisher, all of whom provide their textbook content in formats to run on the most popular LMSs.

Why do I need one?
It makes things easier for teachers and students, and does away with piles of books and papers. Most colleges in the U.S. employ LMSs, as do an increasing proportion of high schools. An LMS can provide flexibility in when and how students learn, and open the door to online courses.

What do they all do?
Many vendors are ready to sell you an LMS, or you can make your own. All of them can:
- Allow teachers to post learning materials online.

http://blackboard.bu.edu/webapps/portal/frameset.jsp?tab_id=_2_1

Boston University Blackboard 8

Home   Help   Logout

My Courses   All Courses   Help

Browse Course Catalog

Search Catalog

Course [Name ⬍] [Contains ⬍] [_____]

AND **Creation Date** [Before ⬍] [Nov ⬍] [05 ⬍] [2009 ⬍] 🗓 GO

⦿ Search this category   ◯ Search entire catalog

Location: Top > Fall 2009 > College of Arts and Sciences

No subcategories found for this category

Course ID	Course Name	Instructor Names	Description
09fallcasaa310_a1	AA310 A1/HI378 A1 History of the Civil Rights Movement (Fall 2009)	JULIA RABIG	
09fallcasaa371_a1	AA371 A1/HI371 A1 African American History (Fall 2009)	JULIA RABIG	
09fallcasah322_a1	AH322 A1, AR322 A1 Aztec and Inca Civilization (Fall 2009)	Clemency Coggins	
09fallcasah367_a1	AH367/AM367 A1 Material Culture (Fall 2009)	Jessica Sewell	
09fallcasah393_a1	AH393 A1 Comtemporary Art: 1980 - Now (Fall 2009)	Gregory Williams	
09fallcasah497_a1	AH497 A1 Seminar: Contemporary Art (Fall 2009)	Gregory Williams	
09fallcasah527_a1	Topics in Art and Society	Margaret Vendryes	
09fallcasam301_a1	AM301 A1 Perspectives on the American Experience (Fall 2009)	Mary Potorti	
09fallcasam546_a1	AM546 A1/MET AM546 B1 Historic Preservation (Fall 2009)	Claire Dempsey	
09fallcasan101_a1	AN101 A1/A2/A3/A4/A5/A6/A7/A8/A9/B1 Introduction to Cultural Anthropology (Fall 2009)	Kimberly Arkin	

- Organize things course by course.
  - Manage student login, and registration into courses.

http://bbhosted.cuny.edu/webapps/portal/frameset.jsp?tab_id=_2_1   Google

CUNY Blackboard 8.0

Home Help Logout

Home   Scholar   Help

Syllabus
1. Ecological Framework
2. History and Science
3. Physical Development
4. Cognitive Development
5. Language Development
5. Intelligence
6. Moral Development
7. Emotional Development
8. Motivation
9. Self and Identity
10. Family and Peers
11. School Context
12. Observational Research
Announcements
Instructor

Communication
Tools

My Grades
Getting Started

Course Map

Control Panel

Refresh

Name	Wrestle: Short Quiz on Cognitive Development
Instructions	This self-correcting quiz will help you ascertain your comprehension of the three theories of cognitive development.
Multiple Attempts	Not allowed. This Test can only be taken once.
Force Completion	This Test can be saved and resumed later.

▼ **Question Completion Status:**

Question 1   10 points   Save

Match the items on the left with the theories on the right.

- Zone of Proximal Development
- Concrete Operational Thinking
- Attention, Memory, and Metacognition
- Conservation of liquid

A. Vygotsky
B. Piaget
C. Information Processing
D. Piaget

Question 2   10 points   Save

Which of the following concepts is *not* central to Piaget's theory of cognitive development?

○ Automaticity
○ Assimilation and accommodation
○ The Sensori-Motor stage
○ Conservation of matter task

Save   Submit

- Allow teachers to create simple quizzes.
- Allow students to turn in assignments online.

CU NY Blackboard 8.0

Home Help Logout

Home   Scholar   Help

CEDF 709 CHILD DEVELOPMENT MASTER COURSE (HUNTR CEDF 709 MASTER 200909) > CONTROL PANEL > PERFORMANCE DASHBOARD

Performance Dashboard

Use the links provided to view user progress details for each performance measurement.

🖨 Print

Last Name	First Name	Username	Role	Last Course Access	Days Since Last Course Access	Review Status	Adaptive Release	Discussion Board	Early Warning System	View Grades
Graves	Sherryl	20021104120349177803	Instructor	Sep 17, 2009 4:36:42 PM	49	0	😊	0	⋮	
Garnett	Katherine	20021104121504210361	Student	Never	Never	0	😊	0	⋮	📋
Leblanc	Gess	20021104122344577177	Instructor	Oct 29, 2009 5:16:33 PM	7	0	😊	0	⋮	
Lengel	James	20060823025716630483	Instructor	Nov 4, 2009 9:12:08 PM	0	0	😊	3	⋮	
Klein	Jennifer	20080531023806670110	Student	Never	Never	0	😊	0	⋮	📋
Manes	Rachel	20090819024455810274	Instructor	Oct 21, 2009 4:09:40 PM	15	0	😊	0	⋮	
Lengel	Kathleen	20090827025357350136	Instructor	Sep 21, 2009 6:01:11 PM	45	0	😊	0	⋮	

OK

- Keep track of who has done what.

CU NY Blackboard 8.0

🏠 Home ❓ Help 🢐 Logout

Home   Scholar   Help

Syllabus

1. Ecological Framework

2. History and Science

3. Physical Development

4. Cognitive Development

5. Language Development

5. Intelligence

6. Moral Development

7. Emotional Development

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Announcements

Instructor

Explore: Video on Infant Reflexes
ReflexesNewborn.MPG (14.287 Mb)
Children begin life with many of the reflexes they need to interact with their physical and social environment. This video with T. Barry Brazelton illustrates some of the hard-wired reactions that form the basis of development.

Explore: Recess or No Recess?
In the *Produce* assignment for the previous course section, you defined a research question about recess in schools, based on a New York Times article. As you read the article again here, consider the implications of eliminating recess for the physical development of students. You will be asked to discuss your thoughts on the forum in the next assignment.
Recess or No Recess?

Wrestle: Discuss Recess and Physical Development
View

What else do some of them do?
The more-developed LMSs can also:
  • Allow teachers to post more complex content, such as video and animation.
  • Allow teachers to create more complex tests and quizzes.

CU NY Blackboard 8.0   🏠 ❓ 🔛
                           Home Help Logout

| Home | Scholar | Help |

Development

5. Language Development

5. Intelligence

6. Moral Development

7. Emotional Development

8. Motivation

9. Self and Identity

10. Family and Peers

11. School Context

12. Observational Research

Announcements

Instructor

────

Communication Tools

────

My Grades

Getting Started

────

📖 Course Map

Bb Communications

Announcements

Collaboration

Discussion Board

Group Pages

Roster

Send Email
Send email.

Voice Board
Voice Boards enable asynchronous group discussions using voice.

Wimba Podcaster
Podcasters enable to create an RSS-enable podcast.

- Provide automated online gradebooks for teachers and students.
    - Provide discussion boards, chat rooms, and virtual classrooms.
    - Manage instant messaging and email among the school community.
    - Manage sub-groupings of students within a course.
    - Manage lunch count, attendance, and room access (with swipe cards).

Cost

|	Least $$	Most $$
100000		
75000		
50000		
25000		
0		
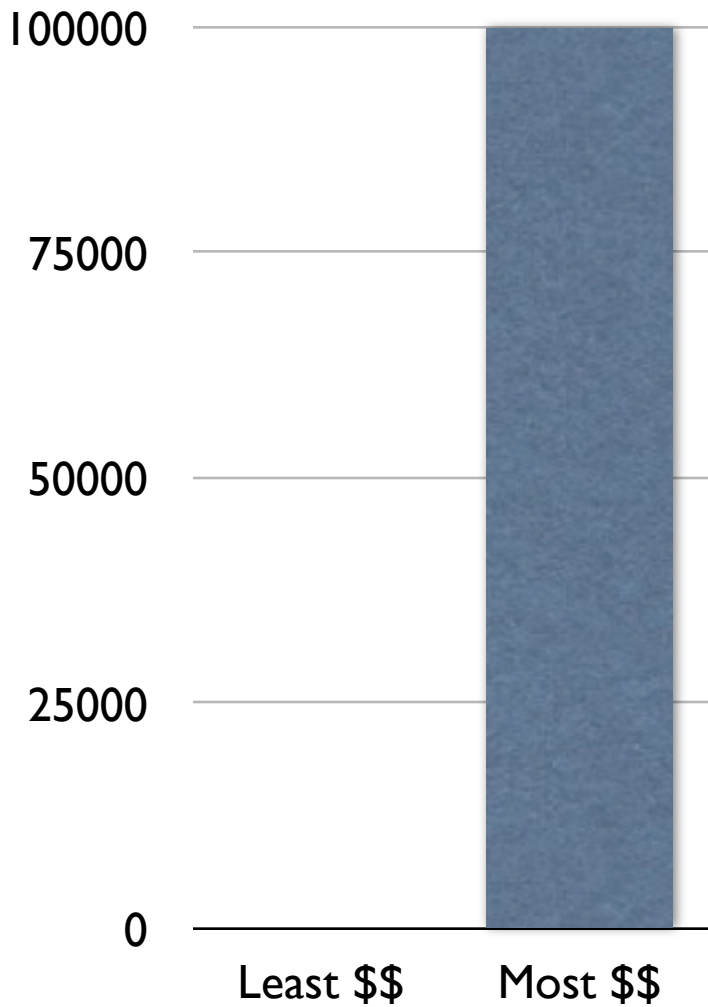
How much do they cost?
The most expensive proprietary systems will cost upwards of $100,000 per year for a large school and all features. The least expensive open-source LMSs will cost you only the time of your staff to install and configure them.

CENTRALIZED (A) DECENTRALIZED (B) DISTRIBUTED (C)

Link

Station

LIVE FREE OR DIE

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What are the system requirements?

All require a robust network infrastructure within the school, a Unix server, and a mainstream database. All are web-based and allow multi-platform clients. Some provide interfaces for mobile devices. All work better in an environment where each student owns his own computer.
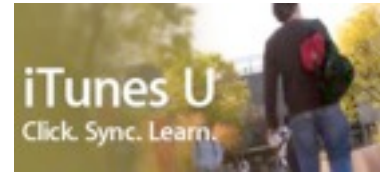
Who are the market leaders?
Among proprietary systems, Blackboard is the big player; among open-source LMSs, Moodle is the leader. Below that many smaller companies are in the business of selling and maintaining LMSs for schools. Sakai is gaining a following among universities. And iTunesU, while not a fully-featured LMS, is being used by many schools to distribute multimedia learning materials on campus, aimed at both computer and mobile devices.

Quick Comparison

Blackboard is the market leader in higher education LMSs. Its full-featured basic system can be extended to provide additional IT services to the campus. CUNY uses Blackboard.

Moodle is the most popular open-source LMS, used widely in K-12 and higher education around the world. Many home-grown plug-ins extend its basic feature set.

Sakai is the most sophisticated open-source LMS, designed by a consortium led by MIT. Components allow you to assemble an LMS that fits your needs exactly.

The **hTech** LMS was designed for a European distance learning consortium, with a limited feature set built around the needs of online teachers and students.

iTunesU was not designed as an LMS, yet very useful in distributing multimedia material to students. Allows course-by-course management, student login, and direct download to iTunes and iPods.

Custom: Build your own LMS customized to the needs of Teacher You, perhaps including both online and classroom-based course support.

Here is a quick comparison of some LMSs.

Ownership

Proprietary.
Blackboard is aggressively marketed to colleges, and is a high-margin product from a profitable company. Customers pay an annual licensing fee to se the software.

Open Source.
A widespread community of programmers has over the last decade developed Moodle code to provide a robust set of LMS functions, all downloadable for free.

Open Source.
Sakai is developed by the best programmers from leading colleges, who divide up the task of developing different parts of the system. It's about 5 years old. Downloadable free.

Open Source.
A French engineering company assembled this LMS from open source components, customized to the needs of a European consortium. Code is freely downloadable.

Proprietary.
Apple provides iTunesU free to colleges, and is working on a K-12 strategy as well.

Proprietary or Open Source.
If you developed your own LMS from Open Source components, it would remain Open Source. If you developed your own from scratch, it would be proprietary.

Programming Environment

UAMP, JS
Blackboard now has a large and complex code base, including many languages and approaches, but at its base remains a web-linked database application. Most large users run it under Unix with an Oracle database.

UAMP, JS
Most Moodle users run it under Linux or Unix with a MySQL database. Its code, contributed by many different people, is mostly PHP and HTML, with extensions in other languages.

Java, +
Sakai adds many components that are built with newer approaches to database programming, and as such is more complex than Moodle.

UAMP, JS
Designed for the traditional Linux/Apache/PHP/MySQL environment, and assembled by a single team, hTech is simpler than Moodle or Sakai, and includes tools for customization that the others do not.

Apple proprietary systems, using iTunes as the client and its own database on the server.

Your Choice
You can build your own system with any approach you want, but the UAMP approach will be easier to develop, maintain, and support.

Local support

Low.
Blackboard provides installers and setup services that the Open Source products do not. But you'd still need a part-time systems administrator with strong UAMP experience to get it started and keep it running.

Medium.
You need a strong UAMP consultant or staff member to set up your Moodle environment, and a part-time UAMP administrator to maintain it.

High.
Sakai's complexity calls for a strong systems engineer to select components, and set it up. Then a part-time Unix - database expert to keep it running.

Low.
Because hTech's options are limited, and customization tools are included, it calls for less expertise in setup and maintenance. But you still need a Unix- database part-timer or consultant.

Low.
Apple servers and clients do most of the work; local support is limited to managing the handoff from the school's network login to the iTunesU database.

High.
You'd need the services of a system designer and programmer to build the application for you, followed by a part-time staffer or consultant to maintain it.

Provider support

High
Blackboard provides a large staff of support people and online systems to help you maintain the software.

Low
You are on your own to support yourself; Moodle.org however provides a well-organized set of user-contributed web support resources.

Low
As with Moodle, Sakai expects that you will be self-supporting, and use he web resources contributed by the community to find the information you need.

Low
Except for the built-in setup and configuration tools provided in the hTech code, you are on your own to support the product.

High.
Apple maintains and upgrades the client and server software at no coat to you.

None
Since you are the provider, you'd be supporting yourself. Though you'd probably hire a contractor to build and support your system for you.

License $

~ $20K annual minimum.
Blackboard's license fee depends on which components you buy, and how large your student population is.

$0 GPL.
Moodle may be used under a standard General Public License that requires no fee.

$0 GPL.
Sakai may be used under a standard General Public License that requires no fee, but membership in the Sakai group.

$0 GPL.
hTech may be used under a standard General Public License that requires no fee.

$0
But requires a contract with Apple.

$0
If you develop it yourself, using Open Source or from scratch, you'll pay no license fee.

Setup $

~ $10K
You'll need to hire someone to set up your systems for Blackboard and to install and configure it.

~ $20K
You'll need to hire someone to download the code, set up your systems, install the files, and configure Moodle the way you want it.

~ $20K
You'll need to hire someone to download the code, set up your systems, install the files, and configure Sakai the way you want it.

~ $5K
You'll need to hire someone to set up your database, download the hTech code, and install it.

~$ 2K
You'll need someone to manage that handoff from your schools network login and course management system.

~ $30K
You'll most likely employ a contractor to build the software and set up your systems.

User Training

Medium.
Most faculty already can learn quickly how to post course materials on Blackboard. But staff support people will need training.

Medium.
If you configure a simple Moodle environment, training will be moderate, and required of all faculty users.

High.
The more complex environment of Sakai will most likely call for more user training.

Low.
hTech is a limited environment, designed for ease-of-use and thus easier to learn.

Low.
Apple is known for its user-centric design. Most people can figure out how to use it by themselves.

Low.
Since the system we be built around your course planning outline, with which users re already familiar, training needs will be minimal.

Customizability

Low.
Blackboard's proprietary nature makes it difficult to customize to your exact preferences.

Medium.
The Moodle community provides many tools to customize your installation, but these are not all easy to configure.

Medium.
The Sakai organization provides many tools to customize your installation, but these are not all easy to configure.

Medium.
hTech's limited feature set does not allow for many options, but its customization tools are easy to use.

Low.
You may customize the front page, and each course page with a picture. The rest belongs to Apple.

High.
This would be customized from the start.

Web Site

http://blackboard.com

http://moodle.org/

http://sakaiproject.org/

http://demo.htech.fr/

http://appple.com/iTunesU

Learning Management Systems