

# LON-CAPA 3.0

**Sneak Preview** 

Gerd Kortemeyer April 2011





#### Overview

- Guiding ideas for new release
- Things already (almost) working
- Things to be done
- Questions



# Guiding ideas for new release

Two design ideas:

- Idea I: Move basic course management to the foreground
- Idea 2: "Flight Management"

# Idea I - Background

- History: CAPA started as a pure assessment system
  - Course Management added later
  - Currently still reflected in the interface



# Idea I - Background

- Used to be just natural science
- Not anymore ZOL, 2% BMB, 3% ACC, 10% STT, 12% PSL, 0% Requirements BS, 10% CE, 0% beyond CSE, 13% PHY, 25% geeky homework LB, 4% MTH, 1% ISP, 6% PHL. 1% FI, 1% Social Sci, 1% NOP, 0% HA, 1% Arts Letters, 2% Nursing, 0% MMG, 3% ISB, 1% NSC, 0% HM, 4% Lyman Briggs, 4% Business, 11% Bring basic Medicine. 4% course Engineering, 13% NatSci, 65% management up front



### Idea I - Design



# Idea 2 - Background

- More features than most systems
   ... but faculty don't know about them
  - Enormous number of parameters, settings, configurations ... sometimes hard to keep track – "Discoverability"
- Very powerful system:
  - "We make the scissors, you do the running."
  - Move to the foreground what is important at the time when it's needed

## Idea 2 - Background





## Idea 2 - Design





#### Idea 2 - Design



- "Flight Management"
- What you need when you need it



### Who is or will be working on that?

- MSU:
  - "Flight management"
  - Grading
  - Overall coordination
- Ostfalia/Wolfenbüttel:
  - Design
  - Look and feel
  - Discoverability
- MIT:
  - Social networking
  - Student support and signaling
- Purdue:
  - Flight management
  - Signaling
- UIUC
  - Hiring additional programmer

#### MICHIGAN STATE UNIVERSITY

Ostfalia Hochschule für angewandte Wissenschaften



Massachusetts Institute of Technology UNIVERSITY





# Things already (almost) working

- In the developer version of LON-CAPA, several of these concepts have already been implemented
- Still need
  - finishing touches
  - testing
- ... but they will be in 3.0 for sure





### Menus

- The "old" LON-CAPA
- Remote Control
- RIP





	Menu	IS			2.	.9
Lain Menu Cou	urse Contents	Course Editor	Groups	Switch course role to 🗘	Other Roles	Help Logout
Go to the previous resource sequence	e in the course				Go to the next resource in the co	ourse sequence 🔶
					Show Metadata	
		Modify user grades for thi			Modify parameter settings for	r this resource
Provide my evaluation of this		Provide feedback message resource	es or contribute to the	e course discussion about this	Prepare a printable document	t
AP Chemistry 2010/2011,					Make notes and annotations a	about this resource
Gerd Kortemeyer (Cours					_	Help Logout
Main Menu   Course (	Contents   Course	Editor   Groups	Switch course role t	o ‡		
Course Contents	s » » Mirrors and	Lenses Homework » M	lagnification 2			🌢 🛃 🚔 🧐
Functions Z Edit	this resource	Modify user grades for thi	s assessment reso	urce 👔 Modify parame	ter settings for this resource	
Gerd Kortemeyer (Course C What's New   Contents Course Contents Functions	People Groups		Switch	course role to 🛟	rences Portfolio Feeds Roles st 🔒 Evaluate 🔊 Communicate	Help Logout





Consistent positions

Gerd Korte ne	yer (Course Co	oordinator)	LB 271	L - Introducto	ory Physi	çs Lecti	ure
Always	ome Messag	jes Prefere	nces Por	rtfolio Feeds	Roles	Help	Locout
What's N⊿w	Contents	People	Groups	Slots Gra	ides 🍋	Cou	rse
Switch course	role to 🗘 📔						
Content	urse 📃 Notes	Vishlist	🍦 Evalu	ate 🛛 🔬 Comm	unicate 🛓	Print	💿 Info
Functions	📝 Edit	🎺 Content	Grades	P Content S	Setting	Home	work



#### Menus

Gerd Kortemeyer (Course Coordinator) LB274, Spring 2011 - Intro Calc-Based Physics II (More ...) New Messages Roles Help Logout Main Menu | Return to Last Location | Course Contents | Course Editor | Groups | Switch course role to... + LB274, Spring 2011 - Intro Calc-Based Physics II **My Roles User Management** Main Z Switch to another user role Manage course users Course/Community requests **Course Management** Menu Communication Edit any group in the course 31 Course anouncements and my calendar Manage slots Send and display messages Modify course configuration R Modify parameter settings (due dates, etc) for resources S Enter the chat room for the course and the course What's New? My Space **Grading and Statistics** Edit any group in the course Enter my portfolio space View calculated grades (Spreadsheet) news. Edit blogs, RSS feeds, and podcasts View the course assessment progress chart 132 Set my user preferences View course assessment statistics Use or edit my bookmark collection **Course Content Content Library** Edit course contents Search the database of published resources and accessible Table of course contents portfolio files Browse published resources Other Logout 2 🤃 Display catalog of courses and communities





### Menus

#### 3.0 Hierarchical Menu

Next level tabs



- Should be intuitive for "old" users
- Less learning curve for new users
- Less clicks



#### Contextualization





### Contextualization

A car (mass 860 kg) is bug need in order to sl

Tries 0/10 click

		Any User				
		in Course		in Course		
Parameter Name	general	for Enclosing Map or Folder	default	from Enclosing Map or Folder	for Resource	
Maximum Number of Tries [Part: 0] (maxtries)	10	*			*	

• ... of course depends on the privileges of the user

<ul> <li>Contextualizat</li> <li>What's New screet</li> </ul>		
<ul> <li>Essays and</li> </ul>		ople   Groups   Slots   Grades   Se » Grade ungraded submissions
drop boxes	V	sheet. Students will see points based on ca
	Grades Overview	Spreadsheet (Detailed)
What's New   Contents   People   Groups   Slots	Folder: Introduction	÷
Brownbag Course » What's New?	Resource: A multiple part probler	● no ○ one student ○ all students
Page set to be displayed after you have selected a role in this		<ul> <li>○ no ○ one student ○ all students</li> <li>○ no ○ one student ③ all students</li> </ul>
Hide all Show all	Submissions:	$^{\bigcirc}$ last submission only $^{\bigcirc}$ last submissi
Problems requiring handgrading	Grading Increments:	Whole Points 💠 Hide
Problem Name A multiple part problem - First Instance	Check For Plagiarism:	⊠ ngraded
click and grade	To view/grade/regrade a submiss Next → Check All Uncheck All No. Select Fullname (Username) S 1 □ Kortemeyer, Gerd (korte) /Supersta Next →	nothing ungraded

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## Grading

#### • Category-based grading mode added

Gerd Kortemey	er (Cour	se Coordinator)	LB 271 - Introductory	Physics Lecture	🖳 Но	me Messages	s Preferences Po	rtfolio Feeds F	Roles Help
What's New	Conte	ents   People   G	roups   Slots   Grades   Set	tings Switch course role to 🗘					
👆 LB 271 -	Introduct	ory Physics Lecture »	Points Display						
Students do no	ot see lin	k to spreadsheet.	Students will see points based o	n categories. Grade display setti	ings				
Grades Overview Spreadsheet (Detailed) Statistics and Reports Assessment Overview Chart Content Grading									
For User Update Display	0	or Student/Employ	vee ID at Domain	msu 🗘 Select User					
Move	Action	Category	Con	tents	Total	Points	Calculation	<b>Relative Weight</b>	Achieved
(0) \$	Delete	Homework	<ul> <li>Mathematical Pre-Course</li> <li>Kinematics Delete</li> </ul>	e, Getting Started Delete	default	\$ N	ew Calculation Rule	20	percent 🗘
			Add Problem or Folder						
			OLB 271 - Introducto	ory Physics Lecture					
			O radiobutton Final Exam Se	¥.					
			Clicker Penistr	ation Syllabus					
• (1) •	Delete	Exams	Written Test 1 Version A	Delete	default	÷ 🗌	ew Calculation Rule	40	percent 🛟
			Add Problem or Folder						
			🔾 Written Test	1 Version B					
			numerical Problem 1 vie	Ť					
			C radiabuttan Drahlam 2 vi						
Create New	Category	Current:0 Total:0							
Save changes t	o grading o	ategories							
	000								

## **Content Editor**

#### Less scrolling and clearer categories on Content Editor

Gerd Kortemeyer (C	ourse Coordinator)	LB 271 - Introdu	ctory Physics Lect	ture	👤 Home Messages	Preferen
What's New Co	ntents   People	Groups   Slots   Grades	Settings Switch	n course role to 🗘		
LB 271 - Introd	ductory Physics Lecture	» Course Contents				Edi
Content O	verview	Content Editor	Conten	t Search	Content Index	
Main Course Docum	nents » Homework » 🕻	Dynamics				
Move	Actions	Document	Settings	5	<u>^</u>	
(1) 🗘 Rem	ove Cut Rename Copy ?	Airplane	Hidden URL	hidden		
(2) 🗘 Rem	ove Cut Rename Copy ?	Coffee Mug on Car Roof	🗌 Hidden 🗌 URL	hidden		
(3) 🗘 Rem	ove Cut Rename Copy ?	Block held in Place on an Inc	ine 🗌 Hidden 🗌 URL	hidden		
(4) 🗘 Rem	ove Cut Rename Copy ?	Book held in Place on a Wall	🗌 Hidden 🗌 URL	hidden		
(5) \$ Rem	ove Cut Rename Copy ?	Two Boxes in an Elevator	🗌 Hidden 🗌 URL	hidden		
(6) 🗘 Rem	ove Cut Rename Copy ?	Braking on a Hill	🗌 Hidden 🗌 URL	hidden		
(7) 🗘 Rem	ove Cut Rename Copy ?	Car Lift	🗌 Hidden 🗌 URL	hidden		
(8) 🗘 Rem	ove Cut Rename Copy ?	Cow on the Road	🗌 Hidden 🗌 URL	hidden		
(9) 🗘 Rem	ove Cut Rename Copy ?	Toxic Waste on Crane	🗌 Hidden 🗌 URL	hidden		
(10) 🗘 Rem	ove Cut Rename Copy ?	Car driving up ramp	🗌 Hidden 🗌 URL	hidden		
(11) 🗘 Rem	ove Cut Rename Copy ?	Accelerated Snack	🗌 Hidden 🗌 URL	hidden	•	
New Folder 🕐	Import Documents	Published Resources G	rading Resources	Community Resources	Special Documents	Tools



# Navigation

#### New automatically generated index

Planets Potential Pendulum Problem 1 Problem 7 Problem 1 Problem 7 Approximat Approximat Problem 7 Problem 7 Cosmic Muo
Problem 12 Problem 4
Body as Ca Thomas the Problem 26
Heart Rate Problem 4 Problem 4 Problem 4
Problem 13 Problem 13
Field at P Accelerati Fieldlines Equipotent Electric F Force and Problem 2 Problem 1 Problem 9 Problem 11 Problem 1 Problem 2 Problem 1 Problem 9 Problem 11
Heart Rate Problem 4 Problem 4 Problem 4
Electron A
Problem 7 Problem 3 Problem 2 Problem 7 Problem 3 Problem 2
Fieldlines Potential
Two ballsSweatingNoodle WatProblem 9Problem 10Problem 5Problem 10Problem 9Problem 12Problem 2Problem 4Problem 10Problem 13Problem 13Problem 13Problem 13Problem 13Problem 13Problem 19Problem 13Problem 13Probl
Body as Ca Energy Bal Carnot Eng Carnot Eng Engine Cyc Thomas the Problem 11 Problem 11 Problem 10 Problem 8 Problem 8 Problem 9 Problem 10 Problem 8 Problem 8 Problem 9 Problem 8 Problem 8 Problem 8 Problem 8 Problem 16 Problem 3 Problem 11 Problem 18 Problem 11 Problem 16 Round Trac Problem 16 Problem 3 Problem 11 Problem 18 Problem 11 Problem 16 Problem 17 Problem 26 Problem 6 Car drivin

# ... and yes, homework ...

- We could not have a new release without some enhancements to homework
- Dynamic graphing



Rules Log

#### Homework

At t=0 s, a car cruises at a constant positive velocity. Suddenly, a light switches to red. At t=10 s, the driver is maximum on the brake. The car then stops in front of the red light for over 2 seconds. Eventually, it drives off, and then again cruises at a constant velocity. The car cannot accelerate with more than  $3 \text{ m/s}^2$ .

Provide a graph of its acceleration as a function of time.





## i>Clicker2

 Fully compatible with numerical and alphanumeric input of i>Clicker2







## Things to be done

- Things that are still left to do
- Currently in concept stage
- Warning: going from actual screen shots to mockups





### New Home Screen

• Home screen shows what is going on across courses, communities, ...

#### Replaces Roles screen

Ω. Home Messages Preferences Portfolio Feeds Help Logout Gerd Kortemeyer Home System Maintenance: Friday, Feb. 30th, 7am-8am **Needs Attention** Announcements Calendar 24 Handgraded Problems 16 Unread Discussion Complete homework assignment #5 by this Fri... **Recent Events:** 2 Problem Error 14 Unread Messages Dec 15 -- Lorem ispum dolor sit amer latin rules ... Class moved to 101 WKH on Wednesday, Sept... Dec 16 - Lorem ispum dolor sit amer latin rules ... Send completed surveys to Prof. Teachwell by next Tuesday or risk losing 5% of your class grade My Roles Enters role Future Events: Expires January 5, 2010 Dec 15 -- Lorem ispum dolor sit amer latin rules... Manage.. and jumps Course Coordinator Dec 16 - Lorem ispum dolor sit amer latin rules... New Announcement: b272 Introductory Physics to relevant December 2010 New Event Þ 💠 Community Member 2011 Faculty Retreat Planning Committee screen 26 27 28 29 30 1 2 3 4 5 6 7 8 9 Expires: 1/5/2010 🚞 calendar Post Author 10 11 12 13 14 15 16 Michigan StateUniversity oubscribe (iCal) 17 18 19 20 21 22 23 efault Dates More ... 24 25 26 27 28 29 30 Cumulative Request creation of a new course of community 31 1 2 3 4 5 6 Display catalog of courses and communities Calendar



### New What's New

#### • "Flight management"

#### • Will be available for all users in all roles

N

Gerd Kortemeyer (Course Coordinator)	LB274, Spring 2011 - Intro Calc-Based Physics II (More)	Q	New Messages	Roles	Help	Logout
Main Menu   Return to Last Location   Cours	e Contents   Course Editor   Groups   Switch course role to 🗘					
LB274, Spring 2011 - Intro Calc-Based Physics II » Wh	nat's New?				What'	s New?
			<b>6</b> 11		,	

Page set to be displayed after you have selected a role in this course. Currently: What's New Page (user preference). Change for just this course or for all your courses/communities.

Hide	e all	Show all	



**Problems with errors** 

Hide

Hide

No problems with errors

				Ch	ange th	resholds?
Resource	Part	Num. students	Av. Attempts	Deg. Diff	Last Reset	Reset Count?
Air Crew Radiation Exposure	single part	2	4.00	0.88		
Angle	single part	108	1.96	0.50		
Area increase	single	108	2.25	0.56		

Unread course discus	<u>Hide</u>		
			Change options?
Location	Туре	Time of last post	Number of new posts
Diffraction by a Single Slit	Resource	last Sunday, Mar 27 at 07:47 pm (EDT)	1
Farthest Point	Resource	last Sunday, Mar 27 at 03:30 pm (EDT)	2
Thin-Film Interference	Resource	on Thursday, Mar 24 at 06:40 pm (EDT)	1

ew course messages		<u>Hide</u>
	No new course messages	
	-	

New critical messa	ges in course	Hide
	No unread critical messages in course	
	No unread critical messages in course	



of difficulty

4 Messages regarding this problem Read



## **New Helpers**

- More helpers to accomplish tasks
- "I want to turn this folder into an exam"
  - hiding
  - dates
  - exam mode
  - etc

phy905 - Physics Education Research FS09 » Helper

#### Select Folder

Back Next

Select the folder you wish to set the parameter for: Select

Jerece	
0	madings and the second
0	mitroduction
0	Student Attitudes and Expectations
0	Expert and Novice
0	📄 Learning to Learn
0	📄 Concept Inventories
0	Topics: Kinematics
0	im Topics: Dynamics, Waves
0	Topics: Electric Fields and Potentials, Circuits
$\odot$	Instructional Techniques: Peer Instruction
0	📄 Instructional Techniques: Tutorials
0	📄 Instructional Techniques: Online Homework
0	📄 Instructional Techniques: Just-In-Time Teaching
0	📄 Gender Differences in Physics Learning
0	Motivating Students
0	Grading to Encourage Learning
0	📄 Class Management
0	im Non-Traditional Students
0	Fostering and Enforcing Academic Integrity
0	informal Science Education and Outreach
0	📄 Developing a Teaching Philosophy
0	i Responses



## New Search



- Recommender system based on dynamic metadata
- Shopping cart metaphor for importing resources





## **New Alerts**

## PURDUE UNIVERSITY

#### Integrate Purdue's alert system for students-at-risk into LON-CAPA

#### **LON-CAPA** Laurie

LON-CAPA Assessment Tools and All Things Edu-Tech

#### More LON-CAPA problems + Signal Alerts contributed to best student performance ever!

by LAURIE ITEN on JANUARY 5, 2011

Ever since I submitted course grades for my BIOL 135, First-Year Biology Lab last semester, I've been doing a "happy dance" because our over all class performance was the best ever! Just check out the table below of student course grades for the past three semesters.

K

Course grades with number of students for past three semesters of BIOL 13500, First-Year Biology Lab

	Fall '09	Spring '10	Fall '10*
A+	0	1	0
Α	6	16	13
A-	10	4	6
B+	11	9	21



SEARCH THIS BLOG To search, type and hit enter SUBSCRIPTION OPTIONS:



#### New Learner Resources



#### Learning Resources

Type of [hide] Resource 🖂	Difficulty Level 🖂	
Video Lecture	65%: Advanced Highschool and Introductory College	Lewin's Lecture on Friction[show]
Text	75%: Calculus Based College	Dave's: Going from Static to [show] Kinetic <sup>®</sup>
Text	60%: Advanced Highschool and Introductory College	Coefficients of Static and Kinetic [show] Friction"
Text	80%: Advanced Calculus Based Physics	Static Friction as Constraint"[show]
Interactive Exercise	60%: Advanced Highschool and Introductory College	Andes Tutorial Problems[show]

#### Content

- "Assets"
- FAQ
- Recommended resources

#### **Frequently Asked Questions**

Number of [hide] Answers 🖂	Ranking ⊯		
0	No ratings yet	How do we define kinetic friction on an incline?[show]	
2	Somewhat Helpful	In what ways are Normal and Frictional Forces components of a contact force?"	[show]



# New Import Tools

#### Automated ANGEL import

	MICI UN	HIGAN STAT IVERSIT	E Y Course	Lesson	s Resources	Communicate	e Report	Automate					
	Hom	ne ⊫ Course	▶ Lessons ▶ THE	MARKET	FOR KIDNEYS	Due 11:00 p.m	., Monday, Ju	ine 8.					
			ARKET FOR				n., Monda	ay, June 8					
Y	A	Add Content Rearrange Settings Reports Utilities Submissions Delete domcc:msu (Course Coordinator) EC 333-750 Governments and Markets FSC											
٩			ME FIRST! nt things to know		What's New					-			
0	080	🖉 Kidney	Market Pre-S	Surv		50 Governmer							
			st: Market for			nt Overvier		Cor	itent E			d	arch
		SLIDE	SHOW NARR		🕐 Tools: 🍟	<u>,</u>		Sort by:	Default	\$			
	P		D READINGS		Course In							9	
		A compe	ndium of readings		? FIRST MIDTERM EXAMINATION - Thursday, June 4, 7:30 p.m., room 117 Berkey Hall						×		
	P		ies on Kidney	Tra	The Mark	et for Kidneys Me First							
		Required	problem sets, an	d oth		/ Market Pre-S	urvev					→ 0	pen, no due date
						st: Market for						, ,	peny no que que
						Show: Narrativ		Market					
					🕨 📄 Guideo	d Readings on	Kidney Mark	ket					
					🕨 🚞 Proble	m Set: Kidney	Transplants	5					
					🕨 📄 Post-te	est: Market for	Kidneys						
					? Kidney	/ Market Post-S	Survey					→ 0	pen, no due date

### More on this

#### 2011 LON-CAPA Conference and Workshop

May 19-21, 2011 Richmond, Virginia

#### Welcome to the 13th LON-CAPA Conference and Workshop!

The LON-CAPA Conference is hosted by Virginia Commonwealth University, Richmond, VA.



Sponsored by





# Thank you!

# Questions and maybe answers?

Gerd Kortemeyer <u>kortemey@msu.edu</u> <u>http://www.lon-capa.org/</u>