

### **SYRACUSE UNIVERSITY** School of Information Studies

#### FACULTY CENTER for TEACHING & LEARNING

# Unleashing Analytics in the Classroom

## **Analytics & Course Design**

#### COURSE MANAGEMENT **Control Panel** Ŧ Content Collection Course Tools Evaluation Course Analytics Course Reports Performance Dashboard Retention Center SCORM Reports Grade Center Users and Groups

### First, Consider the Purpose of Measuring Student Engagement.

- Identifying which activities not only engage students but also produce quality analysis, is critical to designing and adapting faceto-face, online courses, and hybrid courses.
- What are the patterns of performance you are trying to evaluate?



### Patterns of Performance



- When are students logging into my course?
- Which course resources/tools are being used most frequently?
- Which discussions boards generate the most traffic?
- What are the patterns of performance in an assessment?
- What are some of my opportunities for improvement?

### When are Students Logging into My Course?

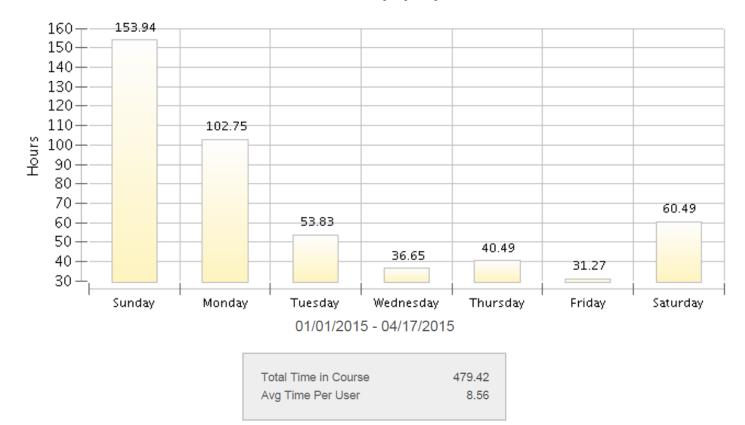
**Course Reports** 

- Course Activity Overview



## **Course Activity Overview**

Course Overview



User Activity By Day

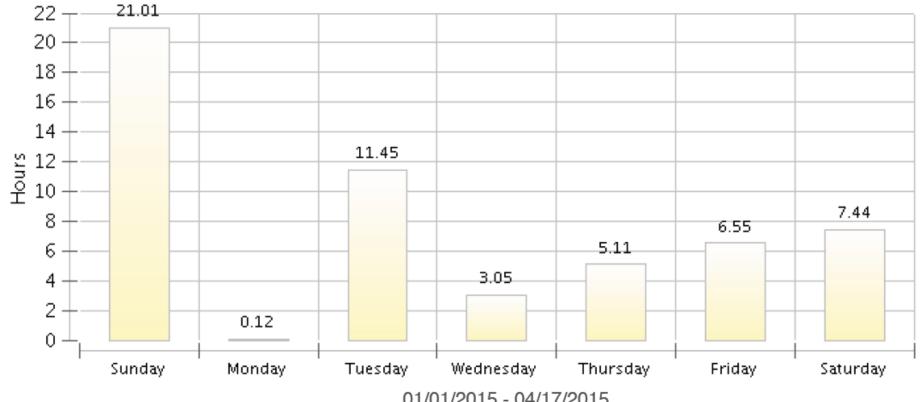
Course Activity Overview displays overall activity within a single course, sorted by student and date. Data includes the total and average time spent per user and the total amount of activity the user had in the course.

## Student Activity

- Find out how much time the student is spending in the course
- Evaluation > Course Reports > Student
   Overview for Single Course

### Student Overview

#### Student Activity by Day

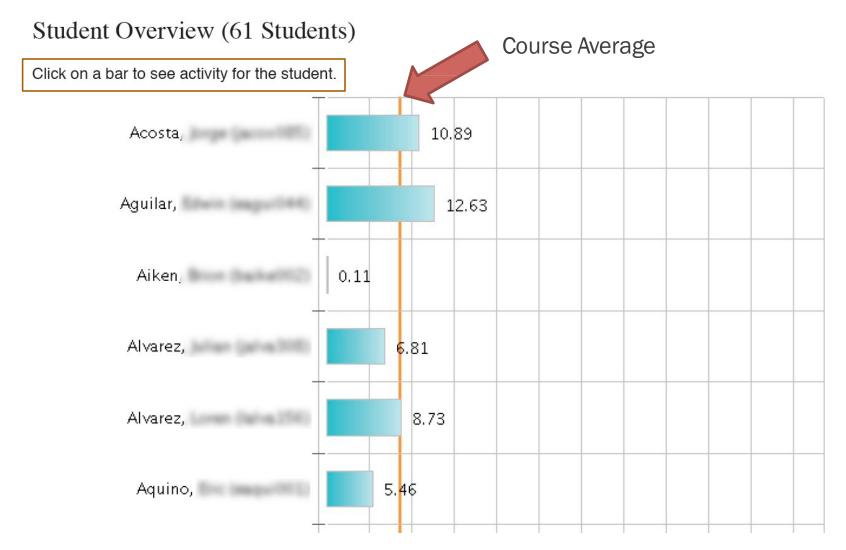


01/01/2015 - 04/17/2015

## Course Activity

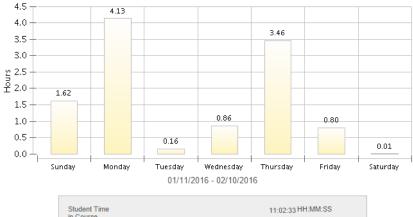
- Find out how their time spent in the course compares to other students.
- Evaluation > Course Reports > Course Activity Overview

### **Course Activity Overview**



#### Student Overview

Student Activity by Day



Student Time in Course	11:02:33 HH:MM:SS
Avg Time Per User	12:52:04 HH:MM:SS
Total Items	13
Total Logins	57
Last Login Date	2/8/16 10:35 PM

#### Student Activity by Item in the Course

Item Name And Type	Total Time Spent in Hours	Number of Times Accessed	Initial Access Date/Time
Assignment 1: Competitive Advantage (10 points) @X@course.service_level_label@X@ Link	0.03	13	Jan 20, 2016 11:38 PM
Assignment 2 - Week 2 Essay Questions - Groups and Teams (5 points) @X@course.service_level_label@X@ Link	0.06	11	Jan 25, 2016 10:36 PM
Assignment 3 - Week 3 Essay Questions - Decision Making (5 points) @X@course.service_level_label@X@ Link	0.01	1	Feb 1, 2016 10:58 PM
Assignment 4 - Problem to Solve (10 points) Assignment	0.31	2	Jan 26, 2016 9:45 PM
Assignments Content Folder	0.92	18	Jan 20, 2016 11:37 PM
Slides Content Folder	0.00	1	Jan 23, 2016 5:14 PM
Student Resources	0.01	2	Jan 28, 2016 11:36 AM

Student Overview for Single Course displays an individual student's activity within a course, sorted by date. Data includes the total overall time the student spent in the course as well as detailed information about the student's activity, such as which items and Content Areas the student accessed and the time spent on each.

## Course Design

### How does this Information Affect my Course Design?

- Posting Announcements/Messages
- Materials/Resources being Accessed [Homepage]
- Time Allotted for Module Content Completion



## Course Design



California State University identified that the more 'views' or visits to the course home page, the higher the final grade. (Whitmer, Fernandes, & Allen, 2012).

What material do you house within your course homepage?

Which Course Resources/Tools are Being used Most Frequently?

### **Course Reports**

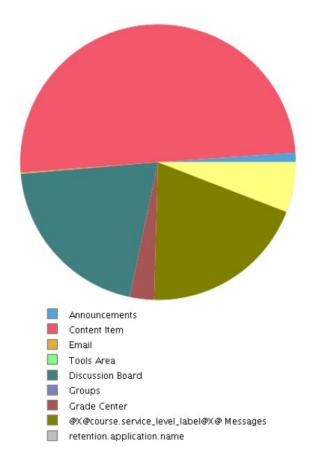
### - Overall Summary of User Activity



## Course Design

#### **Overall Summary of User Activity**

Area ID	Hits	Percent
Glossary	0	0.00%
Portfolios	0	0.00%
Blogs	0	0.00%
LTI	0	0.00%
Calendar	0	0.00%
Chalk Title Management	0	0.00%
Goals (Instructor View)	0	0.00%
Collaboration	0	0.00%
Content Item	10159	50.13%
Email	24	0.12%
course_instructor_tool.name	0	0.00%
Roster	0	0.00%
course_student_tool.name	0	0.00%
Tools Area	3	0.01%
Portfolios Homepage	0	0.00%
date.rollover.application.name	0	0.00%
Discussion Board	4121	20.33%
Flickr Mashup Tool	0	0.00%
grading.application.name	0	0.00%
Groups	1	0.00%
i>clicker Instructor Resources	0	0.00%
i>clicker Student Registration	0	0.00%
iPeer	0	0.00%
Grade Center	578	2.85%
internships.plugin.application.name	0	0.00%
Item Analysis	0	0.00%
Journals	0	0.00%
Blackboard Help	0	0.00%
@X@course.service level label@X@ Messages	3967	19.57%
Performance Dashboard	0	0.00%
plugin.application.name	0	0.00%
resource/x-bb-mobile-assessment.test.list	0	0.00%
retention.application.name	3	0.01%
Self and Peer Assessment Tool	0	0.00%



### How does this Information Affect my Course Design?

- Content Presentation (Tool Modality)
  - Video clips, posted documents, etc.
- Supplemental Resources
- Group Tools
- Student Support Cases



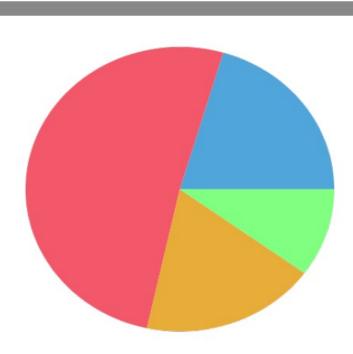
# Which Discussion Boards Generate the Most Traffic?

## Course Reports —User Activity in Forums



### **User Activity in Forums**

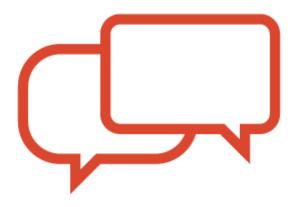
Messages / Forum		
Forum	Hits	Percent
3D Modeling Discussion	46	24.34%
General Forum	15	7.94%
Introduce Yourself	86	45.50%
Title Block Discussion	42	22.22%
	189	





# How does this Information Affect my Course Design?

- Number of views on discussion boards can be an indicator of level of interest of a given topic.
- Hot Topic / In the News



### **Key Question**

### • How can I identify students who are at risk?

elp them take immediate action f					ommunicate with struggli	ng statents and
tudents currently at risk					Students you are	monitoring
3				15	6 Robert Frost	*
Radi ta Ovaniaw					Last Access	80 day(s) ago
STUDENT 🔺	MISSED DEADLINES	GRADES ALERT	ACTIVITY ALERT	ACCESS ALERT	Activity	713% above average
Alexander Bell		•			Grade	2.91% above average
William Shakespeare		•			Missed Deadlines	0
🔲 Napoleon Bonaparte		945			Alexander Bel	· 👘
Hernando Cortes			4		Last Access	Never No Activity in Course
Oliver Cromwell					Grade	39.25% below average
					Missed Deadlines	0
John Dalton				•		
Enrico Fermi	-	*		•	Other information monitoring	you are
Robert Frost					GRADES ALERT	
Samuel Gompers	-	· · ·			External Grade is 10% ab class average	ove 20 students meeting

Students currently at risk

22

View students not at risk

#### Students currently at risk



- Missed Deadlines
- Grades
- Course Activity
- Course Access

#### **Retention Status** Julian \* AT RISK **Monitor** $\square$ Notify 🛛 **Risk Factors GRADES ALERT** MISSED DEADLINES ACTIVITY ALERT ACCESS ALERT 2 item(s) 45% below average 1 day(s) ago 82.11% **•** 9.85% above average 1 deadline has been missed by Activity in the last 1 week(s) is 20% below course average more than 0 day(s) show all rules **Notification History** Add a Note

No communications yet...

#### **Send Notification**

Compose a personalized notification message to one or more users. When you select more than one user to receive a notification, the **To:** field in the message becomes the name of the course so users are not aware of others who receive the same message. If notifications bounce (were sent to an invalid email address), the sender will receive an email notice. More Help

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### **Key Question**

• How can I identify my top performers?

## Key Question

- How can I identify my top performers?
- Why?
  - Send them kudos for being top performers
  - Ask them to serve as peer mentors
  - Interview them and find out what makes them successful; share with the class

#### **Retention Center**

The Retention Center provides an easy way for you to discover which students in your course are at risk. You can communicate with struggl help them take immediate action for improvement. You can also keep track of patterns over time. More Help

#### Students currently at risk

Back to Overview					Last Access	80 day(s
STUDENT 🔺	MISSED DEADLINES	GRADES ALERT	ACTIVITY ALERT	ACCESS	Activity	🔶 713% average
Alexander Bell		•			Grade	2.91% average
William Shakespeare					Missed Deadlines	0
Napoleon Bonaparte		:#5			Alexander Be	
Hernando Cortes	÷			÷	Activity	Never No Activi
Oliver Cromwell	•		:4:		Grade	♣ 39.25 average
John Dalton	×	÷			Missed Deadlines	0
Enrico Fermi		*		•	Other information monitoring	i you are
Robert Frost		18.		•	GRADES ALERT	
Samuel Gompers			(#).		External Grade is 10% at class average	ove
Mikhail Gorbachev						

Students you are monitoring

Customize

20 students meeting rule<

Contract .	
_ast Access	80 day(s) ago
Activity	713% above average
Grade	2.91% above average
Missed Deadlines	0
Alexander Bel	· 🔶
Last Access	Never
Activity	No Activity in Course
Grade	♣ 39.25% below average
Missed Deadlines	0

#### Add Grade Rule

Grade rules are based on a defined score for any grade or calculated column in the Grade Center. Students who score above or below the defined threshold for a specific grade item trigger an alert. Then, you can send an email message to the students and their observers. More Help

✤ Indicates a required field.		Cancel	Submit
RULE INFORMATION -			
Ӿ Rule Name	Top Performers		
Rule Type	Grade		
Included in Risk Table	⊙ Yes ◯ No		
RULE CRITERIA			
To define the score threshold	for a particular Grade Center item, first select the item from the drop-down list. Possible points for the items appear in paren	theses.	
★ Select Grade	O Monitor Final Grade		
	O Monitor Specific Item		
Ӿ Define Criteria	Set Grade Value		
	<ul> <li>Use Average Grades</li> <li>Grade is Above </li> <li>the average grade by a percentage of: 10 %</li> </ul>		
Click Submit to proceed. Cl	ick <b>Cancel</b> to go back.	Cancel	Submit

Select students to notify		
Patrick	Course Grade: 81%	
Juan Juan	Course Grade: 97%	
	Course Grade: 83%	

## Key Questions - Review

- How do I identify students at-risk?
  - Retention Center
- How do I identify my top performers?
  - Retention Center with customized rules
- How do I know if a particular student has been investing time and energy into my class?
  - Course Reports:
    - Student Overview for Single Course
    - Course Activity Overview

#### COURSE REPORTS in BLACKBOARD (A Cheat Sheet)

#### Where to find reports:

Blackboard > Control Panel > Expand EVALUATION > Click on COURSE REPORTS

Report name:	What it really should be called:	What's in it?	When to Run Report:
All User Activity inside Content Areas	Popular Content Report	<ul> <li>Shows you the most popular content in your course (using hit counts)</li> <li>Student by student information on what content areas they are clicking on</li> <li>A chart that shows what date(s) have the most activity</li> <li>Student by student information on what day of the month they are accessing the content</li> </ul>	Monthly
Course Activity Overview	Time Spent Report	<ul> <li>A chart that shows you which day of the week generates the most activity in your course</li> <li>A bar graph showing each student and how their time spent in the course compares to the course average</li> </ul>	Monthly
Course Coverage	Outcomes Report 1	Should only be used if your department is using Blackboard Outcomes Assessment	N/A
Course Performance	Outcomes Report 2	Should only be used if your department is using Blackboard Outcomes Assessment	N/A
Overall Summary of User Activity	Blackboard Tools Report	<ul> <li>A pie chart showing which Blackboard Tools (Announcements, Content Item, Emails, Grade Center, etc.) are most commonly used</li> <li>Student by student information on which Blackboard Tools they are most commonly accessing</li> <li>A chart that shows what date(s) have the most activity with Blackboard Tools</li> <li>A chart that shows which hours of the day have the most activity with Blackboard Tools</li> <li>A chart that shows which day of the week has the most activity with Blackboard Tools</li> </ul>	Monthly
Single Course User Participation	Test Submissions Report	Student by student information on most recent test submissions	As needed
Student Overview for Single Course	Student Report	<ul> <li>Report is run for a specific student</li> <li>A chart that shows how much time they spent in the course, broken down by day of the week</li> <li>Total time spent and number of times accessed for each Item</li> </ul>	As needed
User Activity in Forums	Discussion Forums Report	<ul> <li>Pie chart: shows you the most popular discussion forum in your course (using hit counts)</li> <li>Pie chart: shows you the most popular discussion forum in your course (using # of message count)</li> <li>Student by student information on what discussion forums areas they clicked on</li> <li>A chart that shows you which day of the week generated the most activity for discussion forums</li> <li>Student by student information on what day of the month they accessed discussion forums</li> </ul>	As needed
User Activity in Groups	Groups Report	<ul> <li>Pie chart: shows you the most active group in your course (using hit counts, by group)</li> <li>Student by student information on which group they clicked on</li> <li>A chart that shows what date(s) have the most activity for groups</li> <li>Student by student information on what day of the month they accessed groups</li> </ul>	As needed