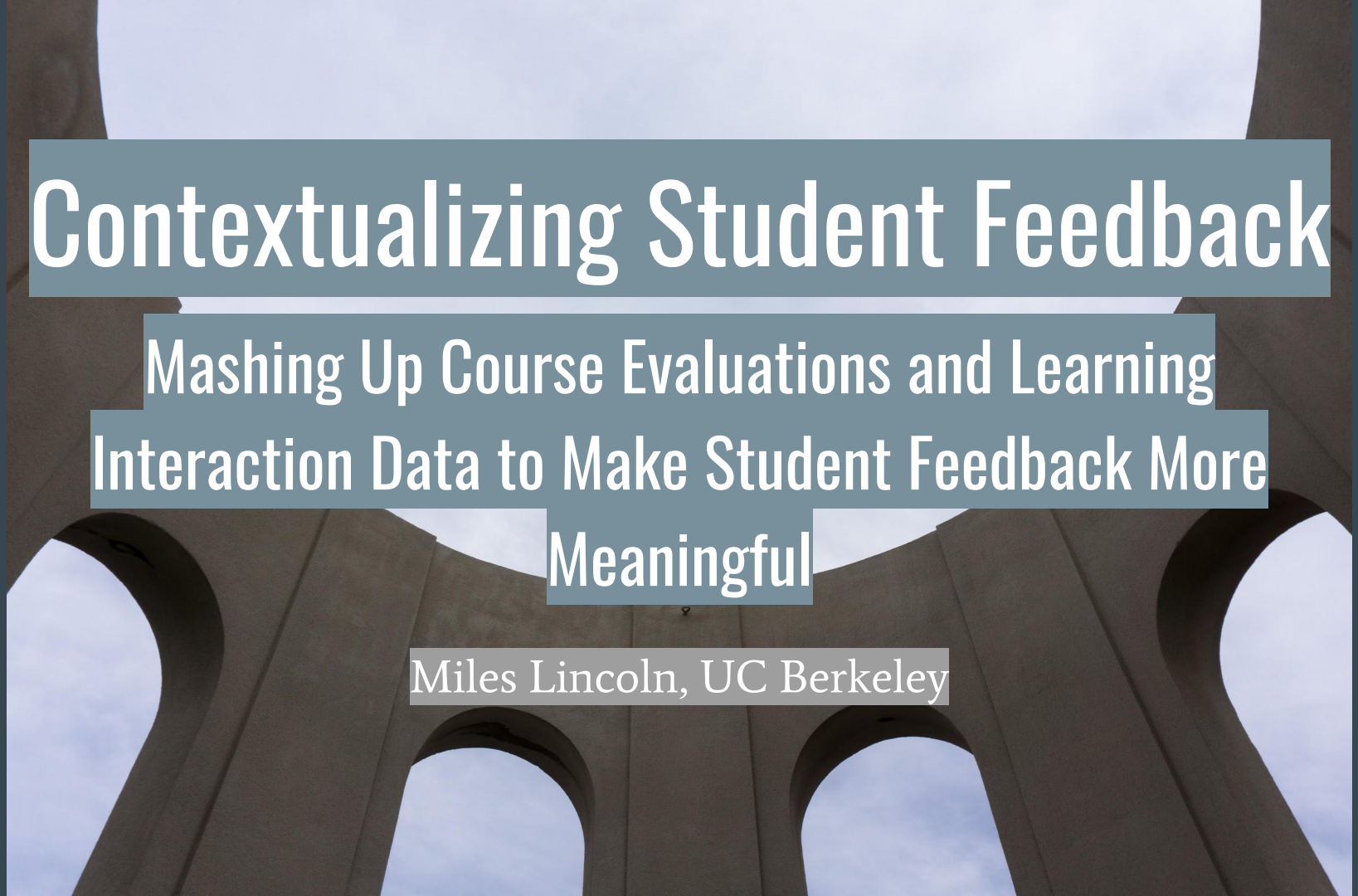


Contextualizing Student Feedback

Mashing Up Course Evaluations and Learning Interaction Data to Make Student Feedback More Meaningful

Miles Lincoln, UC Berkeley

A Little Background:

Course Evaluations at Berkeley are **Decentralized**:

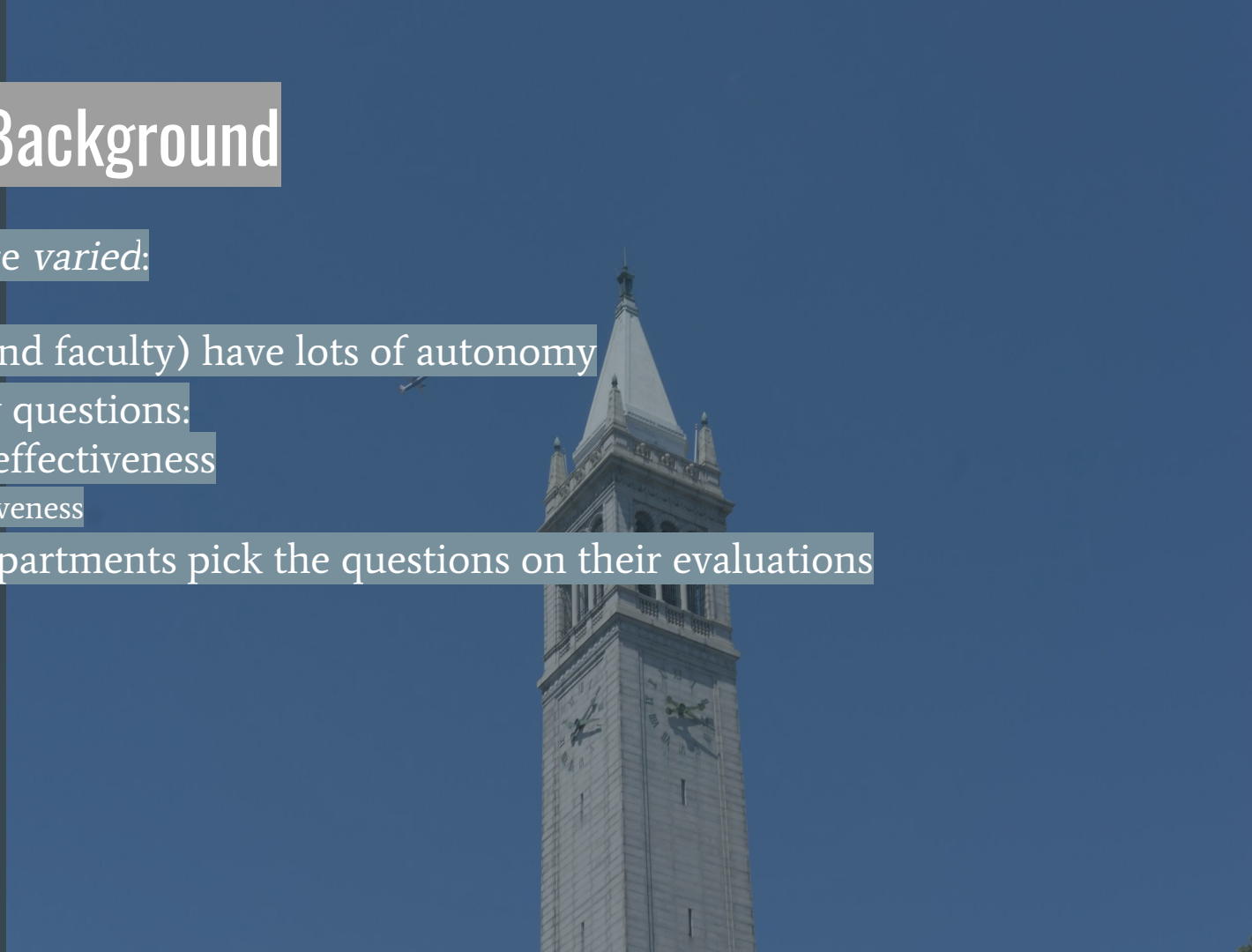
- Multiple evaluation projects
- Multiple online eval platforms
- Multiple formats
- Run by multiple people

Campus Evaluation Project	Business Public Health Extension Engineering	Old-School Departments	The Self-Sustainers	The Third Parties
Explorance		Paper	In-House	Qualtrics, Survey Monkey

A Little More Background

Student responses are *varied*:

- Departments (and faculty) have lots of autonomy
- Two mandatory questions:
  - Instructor effectiveness
  - Course effectiveness
- Beyond that, departments pick the questions on their evaluations



Instigation & Overview

- Course evals are the primary opportunity to get *direct*, *measurable* feedback
  - Informs how instructors iterate their teaching
  - Iterating a course takes semesters or *years*
  - Evaluation reports are tricky to interpret
- Valuable analytics/data are going unused
  - Instructors may not know the data is available
  - Instructors may not know know when real-time data is useful
  - Data fatigue
- Students aren't great at evaluating their own learning

Using Data to Benchmark our Question Bank

Which common evaluation questions can be contextualized with data we record?

How Do We Define Learning Interaction Data?

Any record of a student interacting with learning material

- Viewing an LMS page
- Submitting an assignment
- Watching a video
- Making a discussion post

What About On-Ground Courses?

A student's digital footprint may be an adequate representation of the learning experience for a fully-online class

What if my class doesn't center around the LMS or other digital tools?

Our Data Sources

A great deal of analytical information is captured throughout the run of a course:

- *Aggregate and anonymous analytics*
- *LMS interactions, learning analytics, third-party analytics*
- *Course evaluations*

An end of course report is a document collecting this (and other relevant) information in a standardized manner with the goal of centralizing and contextualizing those pieces of data.

Who is this Report For?

Instructors?

Students?

What are Others Doing?

Outreach

Analytic Dashboards

The Report

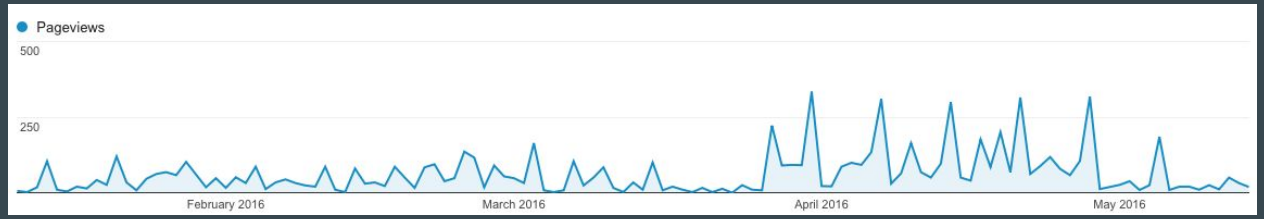
1. Aggregate Analytics: Page views
    - By day, by hour
    - Time spent on course site
2. Learning Analytics: Discussion activity
    - Aggregate activity
    - Most active contributors
    - Other data/Third party analytics
3. Qualitative Data: Course Evaluations

Three Examples

1. The course was effectively organized
2. The instructor encouraged student questions and participation
3. The course made effective use of learning materials (e.g. readings, multimedia)

The course was effectively organized

Daily access info



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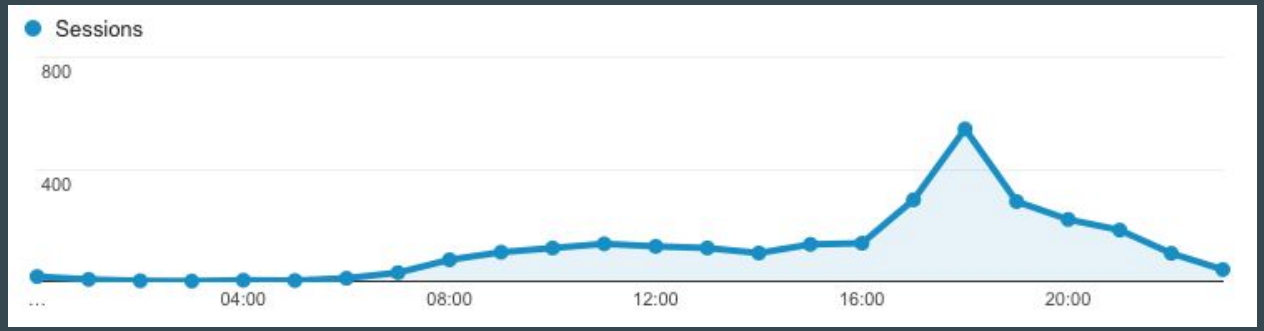
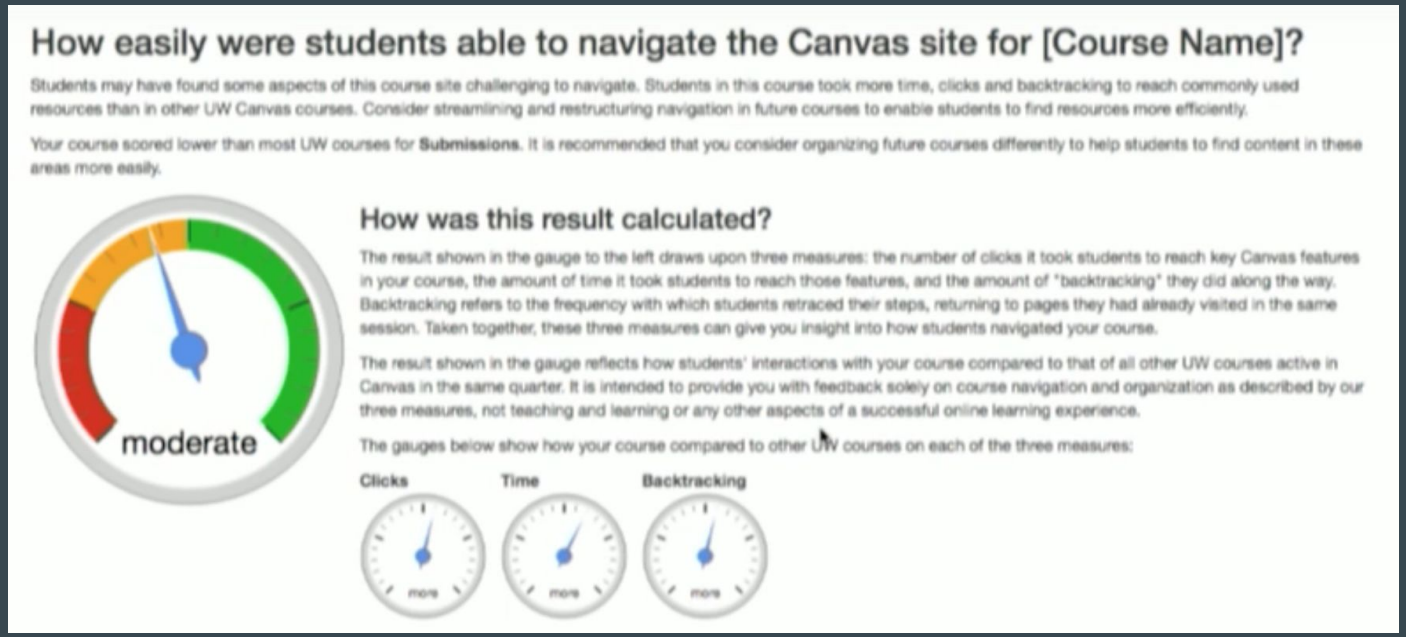


1. Organization > user flow



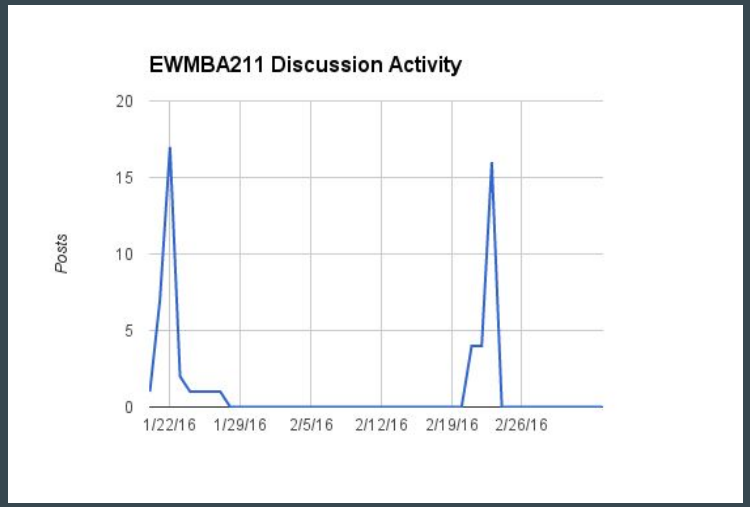
Abigail Evans
Can analytics improve instructional design?
https://www.youtube.com/watch?v=TZcOb6Z0Iko

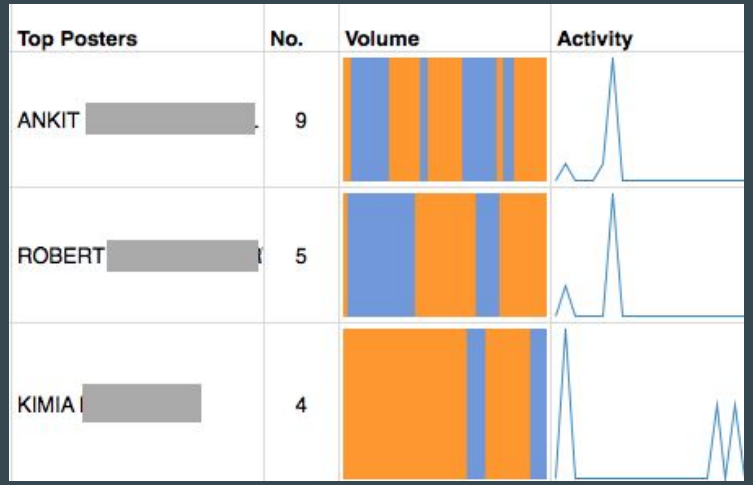
The instructor encouraged student questions and participation

Discussion Activity Dashboard

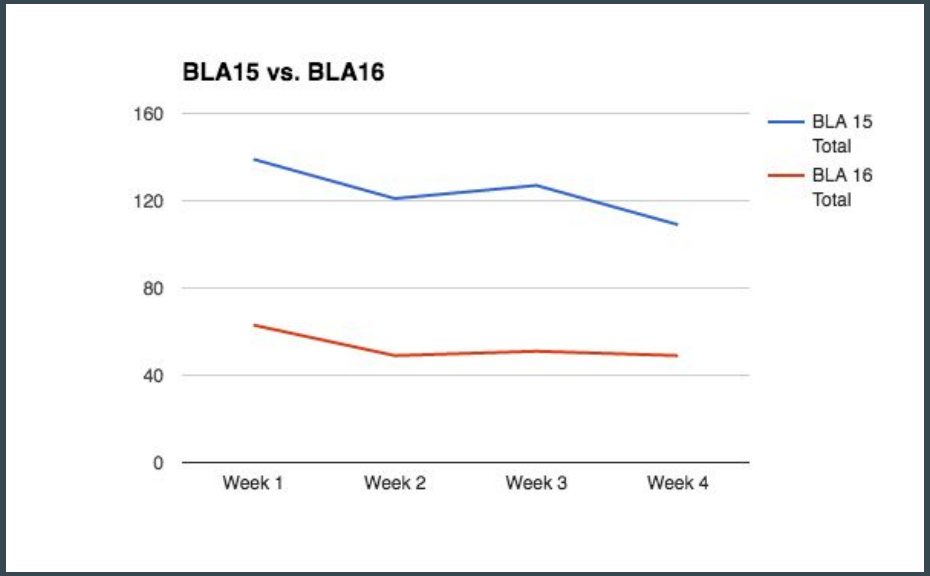
Created by Martin Hawksey

http://tinyurl.com/CanvasDiscussionReports





The Course Made Effective Use of Learning Materials

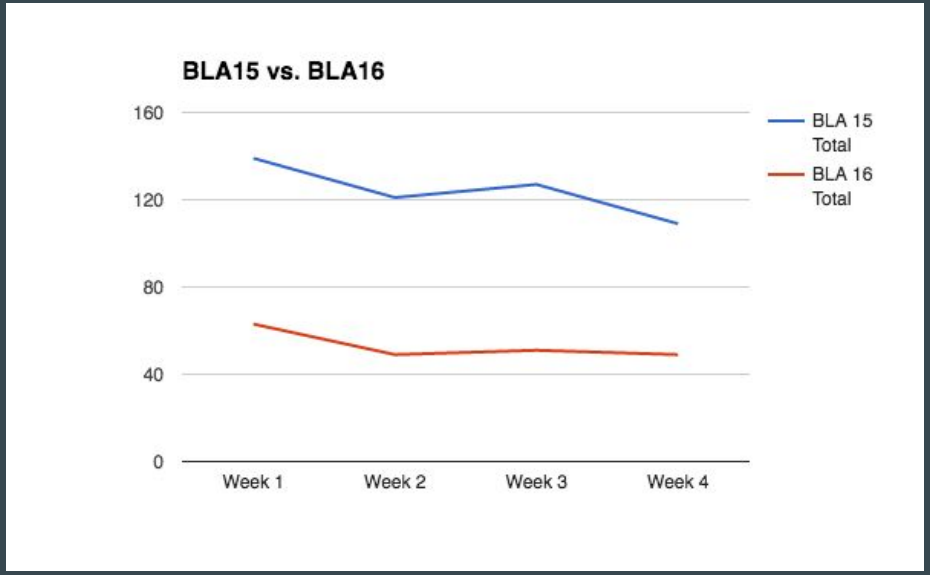


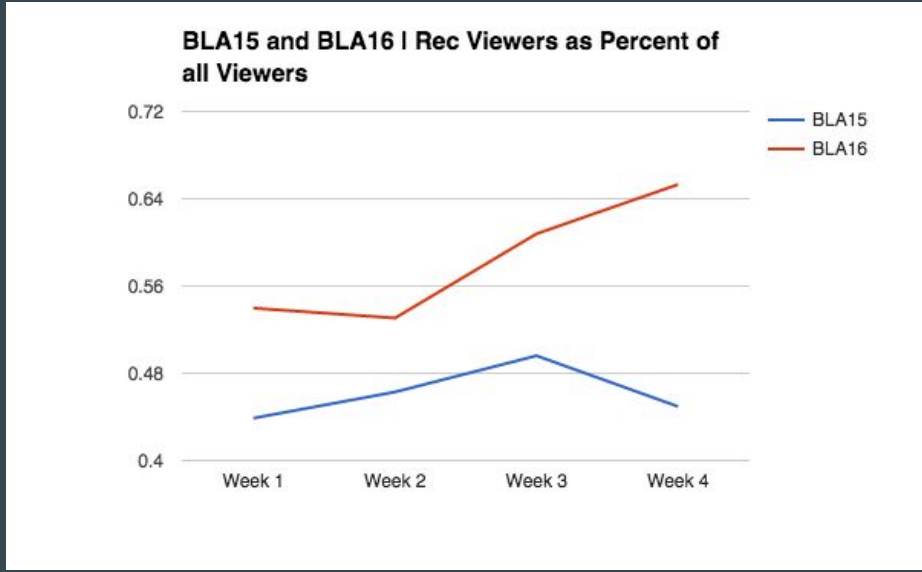
"Attendance"

Media playback analytics

Other logs related to LTI or other tools used

Combine simple data sources to reveal new insights





3. Course Evaluations

Group similar comments together manually or automatically

- E.g. Comments related to communication

Identify themes, and use quantitative rating to compare

- If students had a hard time navigating course site, did they spend less or more time than comparable course sites?

Determine if anything noted can be quantified (retroactively, or going forward)

- “It would be great if we could keep track of...”

What are the Challenges?

Fitting our data to the course

- Filtering data streams for novel information
- Massaging data into a legible format

Processing qualitative data

- Identifying patterns, linking them to quantitative data

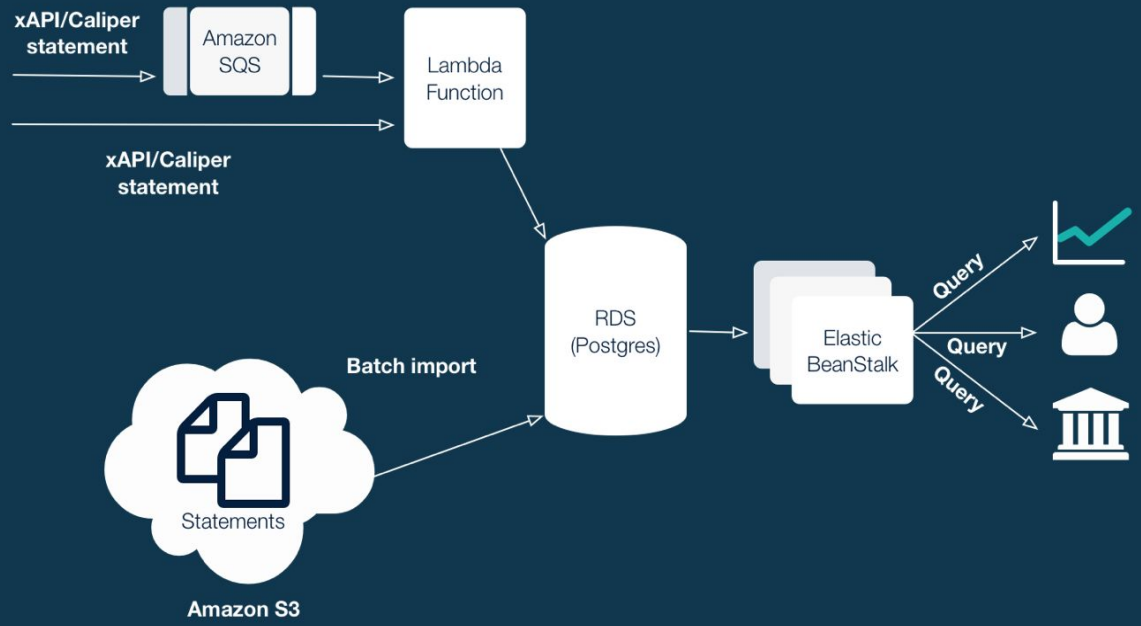
Automating

Initial reports were manually produced. How do we scale from 3 reports to 5000+?

Learning record store + Caliper events

In-house LMS Integrations

UC Berkeley's Learning Record Store



Sandeep Jayaprajash, UC Berkeley

Summary

Aggregate data can help visualize workload, when students are working

Learning analytics and third-party analytics inform how students are engaging with course material

Course evaluations can highlight and contextualize information that might otherwise be noise, and call attention to metrics worth exploring

The Path Ahead / Questions

Slide deck: bluenotes.mileslincoln.com

Aside: Asking the Right Questions

Give students questions about their experience that they can answer honestly, instead of asking them to make a judgement:

Less: The course material was well-organized

More: I had difficulty finding course material

Aside: Question Bank

http://teaching.berkeley.edu/course-evaluations-question-bank

Created by our Center for Teaching and Learning

Encouraged, but not required

Beneficial for sharing data across departments