

# UCCSC 2016... In IT together

## Free Interactive Polling for your Students



UCLA's  
Free  
Online  
Polling  
Tool



Create exciting interactive lecture experiences!

Given By: Rose Rocchio, OIT, UCLA  
July 11<sup>th</sup>, 2016

# What is OPT?

An Award winning, homegrown mobile friendly Online Polling Tool that provides a device agnostic FREE polling service, available to all UCLA faculty, staff and students.

- **The OPT system features:**

- Integration via LTI with any LTI enabled LMS (1.0 so far)
- Full Course roster integration for all UCLA faculty
- Six different types of questions
- Tablet and mobile device friendly
- Easy to use poll creation interface
- Poll cloning for easy to use poll replication
- An alternative to expensive clickers and cloud vendor polling apps.
- We are currently gauging interest in expansion to the UC.

# OPT with Responsive Design

The screenshot shows the desktop version of the Opt dashboard. At the top, there is a blue navigation bar with the 'Opt' logo, a 'Create A Poll' button, a 'View Polls' button, a 'Dashboard' button, and a search bar labeled 'Search Polls...'. Below the navigation bar, the main content area is titled 'Dashboard' and is divided into several sections: 'Search Polls' with a search input and a 'Submit Query' button; 'Open Polls' listing 'Ice Cream in Winter' (Dec 2 2014, 0 responses), 'Mobile Devices' (Dec 1 2014, 2 responses), and 'Favorite Candy' (Dec 1 2014, 2 responses); 'Recently Taken' listing multiple 'Ice Cream' polls from Nov 12 2014; and 'Unpublished Polls' listing 'A History of Labor Unions' (Dec 1 2014).

This section displays the responsive design of the Opt dashboard across different devices. On the left, a tablet shows a condensed version of the desktop dashboard. In the center, a smartphone displays a 'Groups' page for the 'Romantic Writing Course 51610034', listing other courses like 'CLASSIC 1199 Greek History' and 'EDUC 132 Anthropology'. On the right, another tablet shows a poll titled 'CLASSIC 1199 Greek History: Summary' with a pie chart. The pie chart data is as follows:

Group	Percentage
Sparta and Athens	~45%
Corinth and Olympia	~35%
Boeotia and Attica	~20%

 To the right of the tablet, a smartphone shows the 'Romantic Writing Course 51610034' page with a 'Responses: 1' section and buttons for 'View Poll', 'Add Response', 'View Results', 'Clear Poll', and 'Delete Poll'.

# What we will go over Today

- Examples of some REAL faculty processes for how they use OPT
- Poll Creation Mechanics
  - *Take Live Poll #1*
- Poll Creation Mechanics
- Quarterly Statistics
- OPT Features Coming Soon
  - *Take Live Poll #2*
- Polling Tool Landscape
- OPT Market Study Results – Entangled Ventures

# Lets take a sample poll

- Go to @ <https://onlinepoll.ucla.edu>
- **No Need** to login
- Search for UCCSC 2016 #1
- Password is 'Campus'





#1 = Campus

# Search: UCCSC #1

## UCCSC 2016 #1

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*Public • Anonymous • Multiple Responses Allowed*

### 1. What Campus/location are you from?

- UC Berkeley
- UC Santa Barbara
- UC Santa Cruz
- UCLA
- UC San Diego
- UCOP
- UC A&R
- UC Riverside
- UC Irvine
- UC Davis
- UCOP
- UC Merced
- Other

Submit

# Poll Creation Mechanics Talk

## Excerpt by Professor Veronica Santos

Enhancing student engagement  
and lecture-based learning  
with the UCLA Online Polling Tool



Veronica J. Santos

Assoc. Prof. of Mechanical and Aerospace Engineering

[BiomechatronicsLab.ucla.edu](http://BiomechatronicsLab.ucla.edu)



April 29, 2016



# My Process for Using OPT

1. **Prepare** a question slide in Powerpoint
2. **Create** the question at [onlinepoll.ucla.edu](https://onlinepoll.ucla.edu)
  - Code the question title
  - Protect the question with a password
  - Require student login to OPT
3. **Release** the question and password during lecture
4. **Go over results live** with students and address misconceptions on the spot
5. **Score** the questions offline



# Poll Example #1

## Clicker question

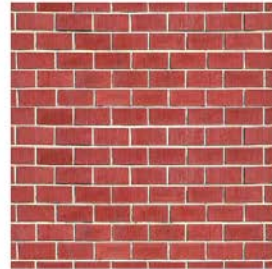


#22 = boba

Consider stopping an egg moving at velocity  $v_1$  with either a loosely held bedsheet or a brick wall. **For which case would there be a larger change in linear momentum?**



A) Bedsheet



B) Brick wall

C) Neither

# Poll Example #2

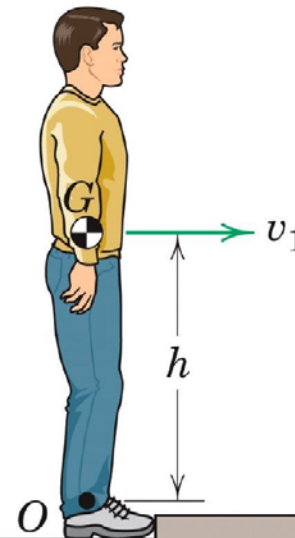
## Clicker question



#47 = trippy

A man is walking with speed  $v_1 = 1.2$  m/s to the right when he trips over a small floor discontinuity. **Estimate his angular velocity  $\omega$  just after the impact.** His mass is 76 kg with center-of-mass height  $h = 0.87$  m, and his mass moment of inertia about the ankle joint  $O$  is  $66$  kg-m<sup>2</sup>, where all are properties of the portion of his body above  $O$ .

- a) 1.20 rad/s CW
- b) 1.38 rad/s CW
- c) 5.78 rad/s CW
- d) 22.6 rad/s CW
- e) 79.3 rad/s CW



For fun

# Create the question on OPT

Opt [Create A Poll](#) [Manage Groups](#) [Dashboard](#)

## Dashboard

**Search Polls**

  
[Submit](#)

## Archived Polls

**MAE 102 W16 -- #56**

Mar 23 2016  
45 responses

[Results \(private\)](#)

[Clone](#)

**MAE 102 W16 -- #55**

Mar 5 2016  
44 responses

[Results \(private\)](#)

[Clone](#)

**MAE 102 W16 -- #54**

Feb 29 2016  
45 responses

[Results \(private\)](#)

[Clone](#)

**MAE 102 W16 -- #53**

Feb 29 2016  
46 responses

[Results \(private\)](#)

[Clone](#)

**MAE 102 W16 -- #52**

Feb 29 2016  
49 responses

[Results \(private\)](#)

[Clone](#)

[View more...](#)

# Create the question on OPT

Opt [Create A Poll](#) [Manage Groups](#) [Dashboard](#)

## Dashboard

**Search Polls**

  
[Submit](#)

## Archived Polls

**MAE 102 W16 -- #56**

Mar 23 2016  
45 responses

[Results \(private\)](#)

[Clone](#)

**MAE 102 W16 -- #55**

Mar 5 2016  
44 responses

[Results \(private\)](#)

[Clone](#)

**MAE 102 W16 -- #54**

Feb 29 2016  
45 responses

[Results \(private\)](#)

[Clone](#)

**MAE 102 W16 -- #53**

Feb 29 2016  
46 responses

[Results \(private\)](#)

[Clone](#)

**MAE 102 W16 -- #52**

Feb 29 2016  
49 responses

[Results \(private\)](#)

[Clone](#)

[View more...](#)

# Create the question on OPT

## Edit Poll

### Title

MAE 102 W16 -- #22

### Description

### Optional Password

boba

### Restrict Poll to Logged In Users



### Anonymous Poll Responses



### Restrict Poll to Single Response per User



### Restrict Poll to Group



### Allowed Group(s)

- Dynamics of Particles and Rigid Bodies (15F-MECH&AE-102-1)
- Dynamics of Particles and Rigid Bodies (16W-MECH&AE-102-1)

- I use a standard format for naming questions so that students can easily search for them.
- This may not be necessary, depending on how the instructor uses Groups.

# Create the question on OPT

## Edit Poll

---

### Title

MAE 102 W16 -- #22

### Description

I use passwords to control the timing  
of the release of my questions.

### Optional Password

boba

# Create the question on OPT

## Edit Poll

### Title

MAE 102 W16 -- #22

### Description

### Optional Password

boba

### Restrict Poll to Logged In Users



### Anonymous Poll Responses



### Restrict Poll to Single Response per User



### Restrict Poll to Group



I require that students log in and cannot submit anonymous responses for points-based polls.

## Edit Poll

---

### Title

MAE 102 W16 -- #22

### Description

### Optional Password

boba

### Restrict Poll to Logged In Users



### Anonymous Poll Responses



### Restrict Poll to Single Response per User



### Restrict Poll to Group



I only allow students to answer a question once.



# Security and Control use Groups

## Optional Password

boba

## Restrict Poll to Logged In Users



## Anonymous Poll Responses



## Restrict Poll to Single Response per User



## Restrict Poll to Group



## Allowed Group(s)



Dynamics of Particles and Rigid Bodies (15F-MECH&AE-102-1)



Dynamics of Particles and Rigid Bodies (16W-MECH&AE-102-1)

For security and control of your content, it is a good idea to restrict polls to a Group.

# OPT Poll Creation Mechanics

**Restrict Poll to Logged In Users** ?

If you want to see respondents names, click this

**Restrict Poll to Single Response per User** ?

If you want to allow students to ask questions anonymously, use this

**Restrict Poll to Group or Class** ?

If you are giving credit for a poll, use this

**Anonymous Poll Responses** ?

If you want to restrict a poll to a class, click this, you will see you're a list of your courses from the registrar.

# Submit the Poll to Save it

**Question 1** ✕

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**Content**

For which case would there be a larger change in linear momentum?

**Question type**

Multiple Choice, Single Answer ▾

**Options**

 Reorder

Bedsheet ✕

Brick wall ✕

Neither ✕

[Add Option](#)

[Add Question](#)

[Submit](#)

# Edit the poll, as needed



Create A Poll 

Manage Groups 

Dashboard 

Search Polls...



Poll was successfully updated.

## MAE 102 W16 -- #22

Status: Unpublished

Questions: 1

Responses: 0

Access: Group Required ( "Dynamics of Particles and Rigid Bodies (16W-MECH&AE-102-1)" ) ( Not Anonymous | Limited to One Response )

Edit Poll

Clone Poll

Open

Delete Poll

# Open the poll



Create A Poll

Manage Groups

Dashboard

Search Polls...



Poll was successfully updated.

## MAE 102 W16 -- #22

**Status:** Unpublished

**Questions:** 1

**Responses:** 0

**Access:** Group Required ( "Dynamics of Particles and Rigid Bodies (16W-MECH&AE-102-1)" ) ( Not Anonymous | Limited to One Response )

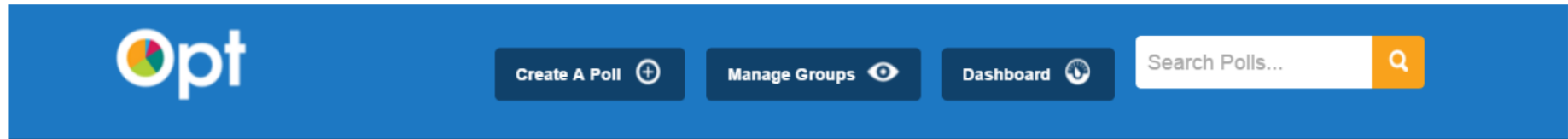
Edit Poll

Clone Poll

Open

Delete Poll

# Open the poll



The navigation bar features the Opt logo on the left, followed by three buttons: 'Create A Poll' with a plus icon, 'Manage Groups' with an eye icon, and 'Dashboard' with a clock icon. On the right side, there is a search bar labeled 'Search Polls...' with a magnifying glass icon.

Poll was successfully updated.

## MAE 102 W16 -- #22

**Status:** Unpublished

**Questions:** 1

**Responses:** 0

**Access:** Group Required ( "Dynamics of Particles and Rigid Bodies (16W-MECH&AE-102-1)" ) ( Not Anonymous | Limited to One Response )

Edit Poll

Clone Poll

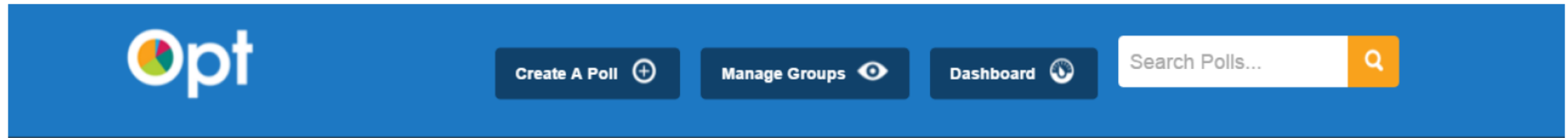
Show Results

Delete Poll

Hide Results

- Decide whether you want students to see aggregate responses while the poll is still open.
- I prefer to keep responses private until the “live reveal.”

# The poll is now “open” and available to students



The navigation bar features the 'Opt' logo on the left. To its right are three buttons: 'Create A Poll' with a plus icon, 'Manage Groups' with an eye icon, and 'Dashboard' with a circular arrow icon. Further right is a search bar labeled 'Search Polls...' with a magnifying glass icon on the right side.

## MAE 102 W16 -- #22

Status: Open

Questions: 1

Responses: 0

Access: Group Required ( "Dynamics of Particles and Rigid Bodies (16W-MECH&AE-102-1)" ) ( Not Anonymous | Limited to One Response )

Answer Poll

Poll Responses

Show Results

Clone Poll

Close Poll

Delete Poll

# The poll is now “open” and available to students



Create A Poll

Manage Groups

Dashboard

Search Polls...



## Dashboard

### Search Polls

Search polls...

Submit

### My Polls

MAE 102 W16 -- #22  
(demo)

Apr 29 2016 7:52 am

Take Poll

View More...

### Open Polls

MAE 102 W16 -- #22

Apr 29 2016

0 responses

Manage

Results (private)

View more...

### Archived Polls

MAE 102 W16 -- #56

Mar 23 2016

45 responses

Results (private)

Clone

MAE 102 W16 -- #55

Mar 5 2016

44 responses

Results (private)

Clone

MAE 102 W16 -- #54

Feb 29 2016

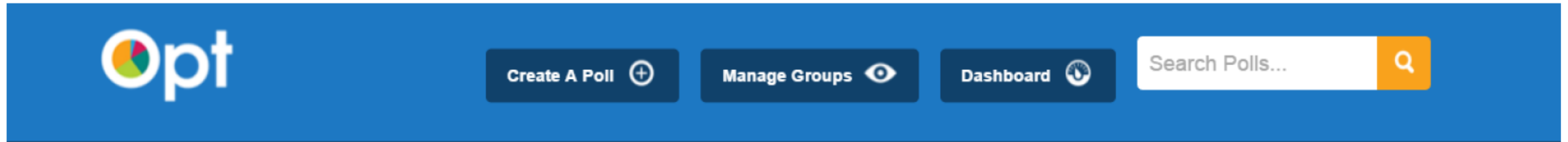
45 responses

Results (private)

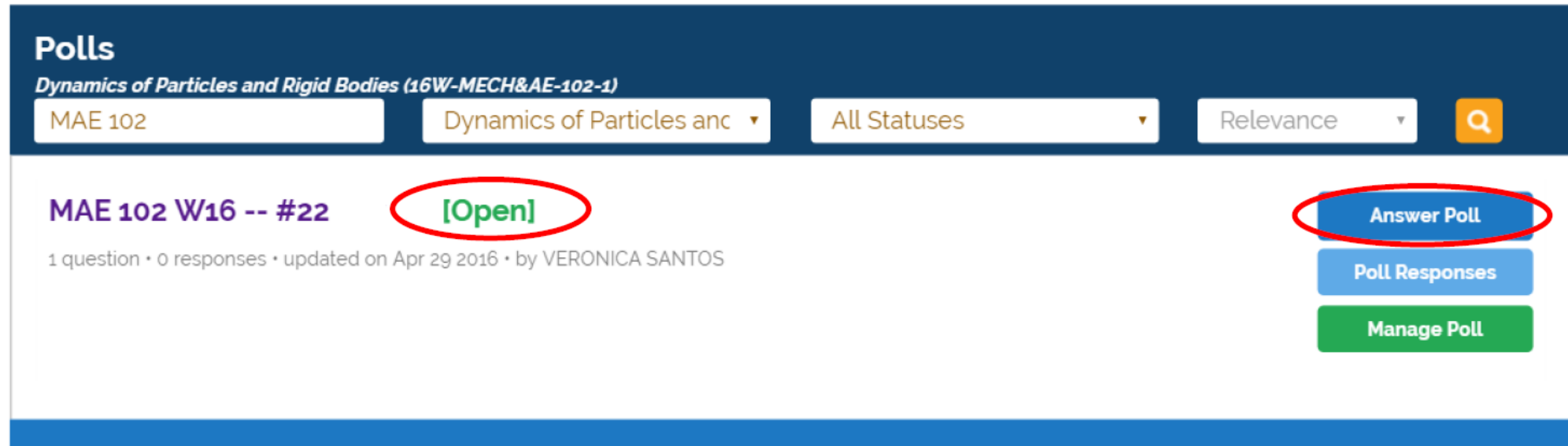
Clone



# The poll is now “open” and available to students



The navigation bar features the 'Opt' logo on the left. To its right are three dark blue buttons: 'Create A Poll' with a plus icon, 'Manage Groups' with an eye icon, and 'Dashboard' with a circular arrow icon. On the far right is a search bar with the placeholder text 'Search Polls...' and a magnifying glass icon.



The interface shows a 'Polls' section for the course 'Dynamics of Particles and Rigid Bodies (16W-MECH&AE-102-1)'. It includes filter boxes for 'MAE 102', 'Dynamics of Particles anc', 'All Statuses', and 'Relevance'. A search icon is also present. The main content area displays a poll titled 'MAE 102 W16 -- #22' with a status of '[Open]' circled in red. Below the title, it shows '1 question • 0 responses • updated on Apr 29 2016 • by VERONICA SANTOS'. To the right of the poll, three buttons are stacked: 'Answer Poll' (circled in red), 'Poll Responses', and 'Manage Poll'.

# ***REAL*** UCLA Instructions for Students

- You must be logged in at <http://onlinepoll.ucla.edu/>
- Wifi Instructions:
  - In order to successfully log in, you must use the 'UCLA\_WiFi' network or your data plan.
  - The 'UCLA\_Web' network does not have security privileges that enable you to log in with your BruinID.
- Polling points for correct answers over the course of the quarter will be used as extra credit.
- Participation in polls is optional.
- I will not be accepting any responses via paper unless there are extraordinary circumstances (e.g. cellphone battery dies, wi-ficonnectivity issues, etc.).
- Paper responses must be submitted **before** I close the poll and reveal the correct answer.
- All questions will have the format **MAE 102 W16 --#X**

# Sample Instructions for Students

- You must be logged in at <http://onlinepoll.ucla.edu/>
- Give them **Wifi** Instructions (instruct which ones do NOT work)
- Explain how Points are awarded
  - Explain how points impact their grade ( ie: extra credit only)
  - Decide if Participation in polls is optional
- State the Limitation on when you will accept a “paper” response (ie: before POLL is closed...and answer revealed)
  - Explain poll naming convention & how to find them:
    - **Course Name # SeasonYY**

# Results of **Real** Course Poll

## MAE 102 W16 -- #22: Summary

Summary List Export

1. For which case would there be a larger change in linear momentum?

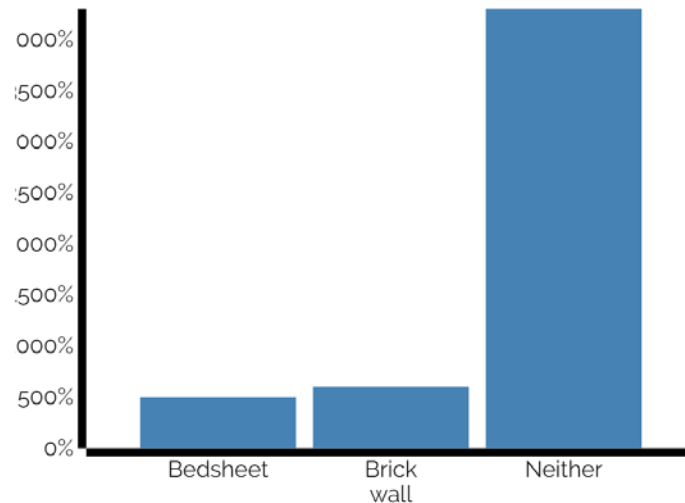
Values Pie Bar

Choice	Value
Bedsheet	5
Brick wall	6
Neither	43

Summary List Export

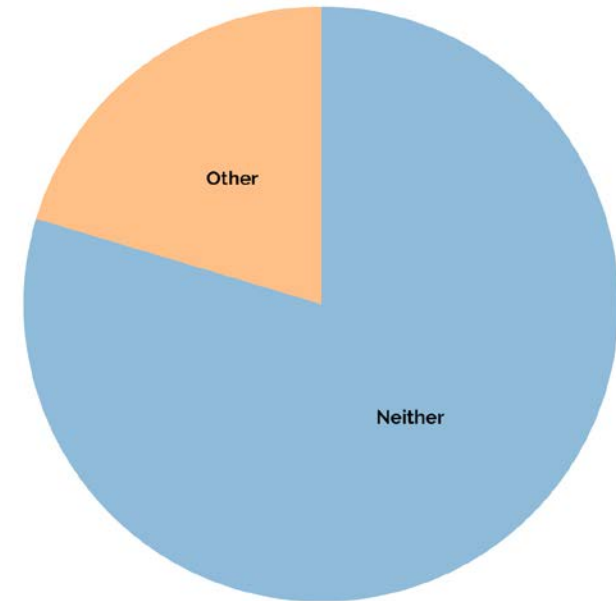
1. For which case would there be a larger change in linear momentum?

Values Pie Bar



1. For which case would there be a larger change in linear momentum?

Values Pie Bar



Summary List Export

# “Completely Successful OPT Trial”

Professor Gershon Weltman

Rose et al,

OPT worked like a charm.

I opened the poll during the 8:50 break, and directed the students to it after presenting the case study.

5 minutes for responses to 4 questions seemed more than enough; students are quick on mobile devices.

About 140 students responded, far more than the usual show of hands, and with far more enthusiasm.

The bar graphs provided valuable feedback on the distribution of responses, as well as a great point of departure for me to discuss the nature of the problems and ethical issues involved. I also had at least one student speak to the various points of view.

I've attached the slides I used in the polling trial for your information and any other use you can put them to.

All in all, a very productive experience, which I will endeavor to repeat and expand upon.

Thank you again for your invaluable guidance and help.






Gershon

# Poll Discovery – getting to the polls

- Options to get students to find the polls:
  - Tell them the name
    - Restrict by creating password & give it in class
  - Give them the link or put it in CCLE
  - Use a QR Code
  - Create them for your Group/Class

# \*New Reports for Groups/Classes

UCLA • ROSEMARY ROCCHIO <rrocchio@oit.ucla.edu> ROCCHIO Logout

 Create A Poll  **Manage Groups**  Dashboard   

## Groups

**Information Architecture Group** 2 users Edit Delete Summary Report Detail Report

Create Group

[About](#) • [Privacy](#) • [Terms of Use](#) • [Staff Login](#)

# Lets take a poll about features

- Go to @ <https://onlinepoll.ucla.edu>
- **No Need** to login
- Search for UCCSC 2016 #2
- Password is 'Features'







#2 = Features

# Search: UCCSC #2

## UCCSC 2016 #2

*Public • Anonymous • Multiple Responses Allowed*

**1. What Features are critical to a polling tool for OPT for your Teaching Needs? Check all that apply:**

- Ability to identify which answer is correct
- Export of grades to LMS
- Ability to "rank" order choices in a multiple choice question
- The option to "time the close and release" of poll results
- Live updating visualization of results
- A Word Map visualization for short text answers
- Integration with Powerpoint
- Horizontal Bar chart for visualization
- Image click response with hotspots poll
- Ability to use LaTeX in labels
- Native App Clients

Submit

# Features Under Development

- Live Updating of Results as an option
- Word Clouds for the text responses
- Ability to mark the correct answer and auto-score results
- LTI Outcomes

## Features Under Consideration

- Implementation LTI 2.0
- Implementation of the Caliper metric profiles that apply

# Ideas for Teaching with Polls

- Use your Groups/Classes
- Use an anonymous poll during your class to get questions students are too shy to ask
- Use it for feedback on each session

# Benefits to a Cloud based Polling Tool

- No 3rdparty hardware costs.
- No 3rdparty software costs.
- No physical devices to track.
- No physical devices to maintain.
- Can leverage existing WiFi coverage throughout the campus.
- Can work with a local and responsive UC Team who are striving to develop a useful tool for instruction.

# Benefits to students and instructors

- Helps to break up the monotony of 2 hour lectures
- Interactive lectures
- Instructors can detect, discuss, and correct misconceptions on the spot.

## Particular benefits to students:

- They don't have to pay for new devices that may only be used once.
- They don't have to borrow, keep track of, or remember to pack devices.
- They don't have to pay for 3rdparty software...typically done on a quarterly basis!

# Student feedback

- Anticipation and excitement grew whenever I gave a series of questions, but did not immediately reveal responses.
- For students who did not care for clicker questions, I reminded them that clicker questions were optional.
- **Anonymous student evaluations**
  - “...clicker questions (good to **wake us up** and **engage us**, and also a needed **break**).”
  - “...clicker questions **kept students focused** and made sure they **understood each concept**.”
  - “I really like the idea of Clicker questions because it **encourages me to follow the lecture** and not base my learning purely on review”
  - “Clicker questions help student to keep focus in class and **provides a reason for interaction between the professor and students and between students**.”

# Student feedback

- **Anonymous student evaluations**
  - “Clicker questions made it very easy to learn as it **created opportunity to apply concepts to problems**. Direct checking of understanding **made it easy to never fall behind**.”
  - “Clicker questions help **reinforce the material** and it's **kind of fun**.”
  - “With clicker questions, slides, and white board problems, I found this class to be **very engaging**. Throughout the quarter, I've found myself **looking forward to having class** and even felt like I was **having fun solving clicker questions**. Personally, I found the clicker questions and case studies great resources for **building confidence** to take on the homework.”

DEMO



TRY DEMO

UCLA



UCLA LOGIN



# Questions or Discussion

- Ideas on how and where OPT could be useful on your campus?



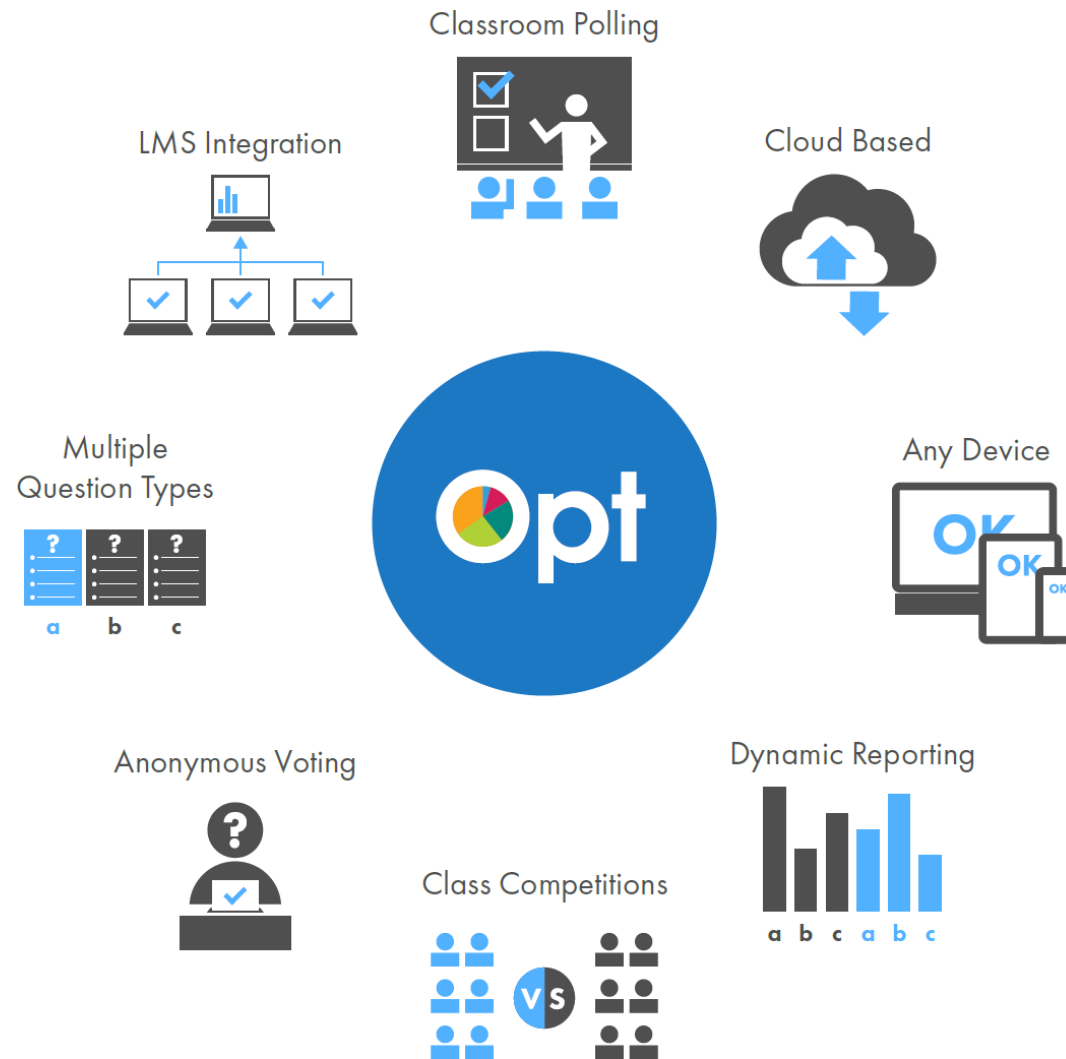
## Commercialization Strategy

**entangled**.solutions

Lead Consultant: Paul Freedman

Project Manager: Mat Frenz

# Overview



# The Opportunity



## Classroom Polling = Effective

A  **study** of 2,600 students and 27 faculty members

### Faculty

- 94% reported better student engagement
- 87% reported greater participation
- 74% reported improved student learning

### Students

- 69% reported increased engagement
- 70% reported increased participation
- 67% reported increased attention levels

## Market Composition



Higher Education

1,833,932 Instructors

4,726 Institutions



Grades 6-12

1,758,400 Teachers

132,183 Schools

# Competitors



# The Players



Company: Turning Technologies  
Employees: 300  
Users: 4M + Educators  
Model: Subscription  
Pricing: \$8-15/yr/student



Company: Top Hat Monacle Inc  
Employees: 140  
Users: 500 + Institutions  
Model: Subscription  
Pricing: \$36/year/student



Company: MasteryConnect  
Employees: 130  
Users: 1.1M + Educators  
Model: Free  
Pricing: Free



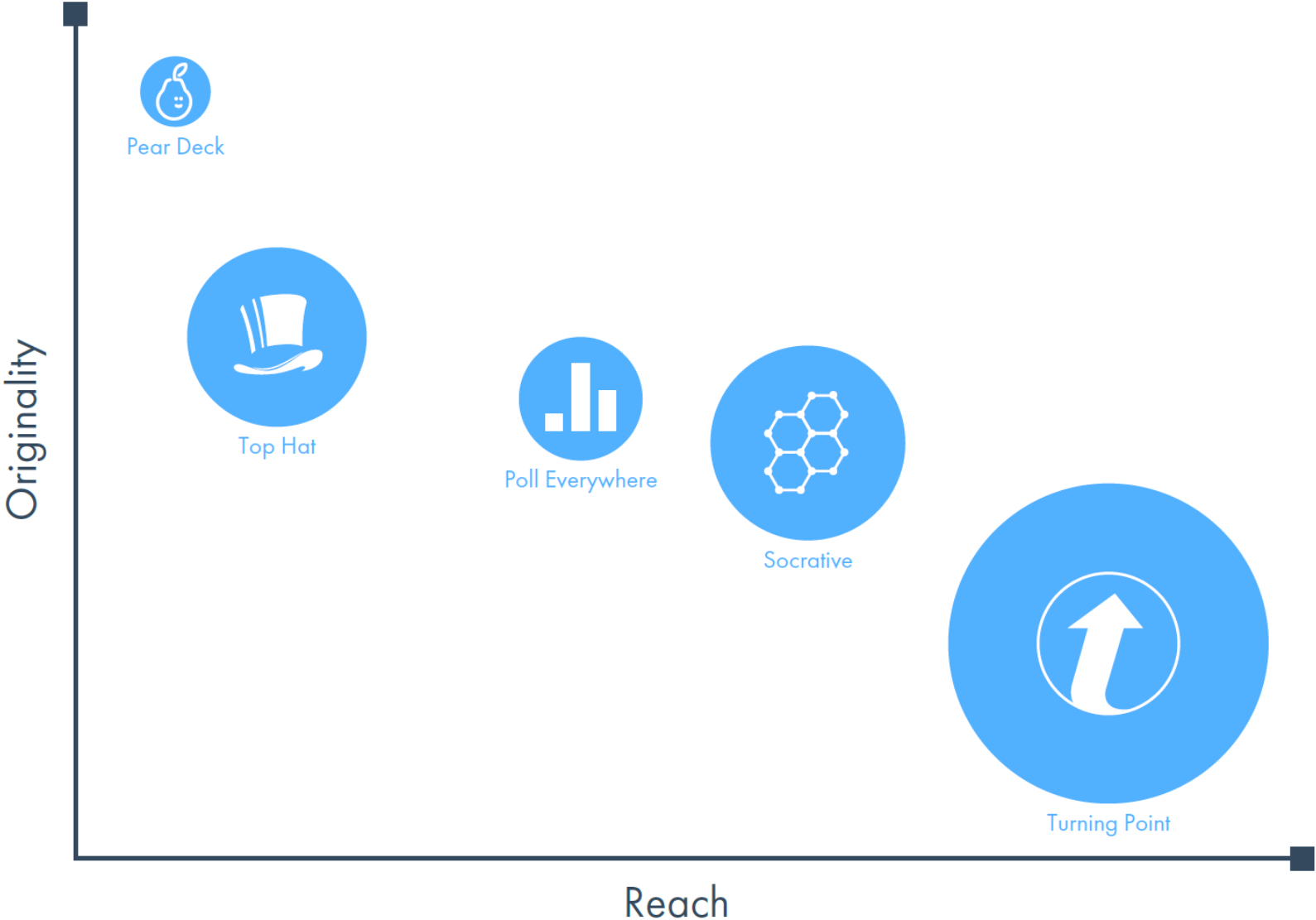
Company: Poll Everywhere  
Employees: 40  
Users: 100k + Educators  
Model: Freemium Subscription  
Pricing: \$14/yr/student



Company: Pear Deck  
Employees: 9  
Users: 4500 Schools  
Model: Freemium Subscription  
Pricing: \$99/yr/student



# A Varied Landscape



\* Size of circles related to number of employees

# Opt 3-Stage Go-to-Market-Strategy

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## Stage 1



UC Adoption  
Investment: \$10k-50k  
Gate KPI: 2000 Professors

## Stage 2



Monetization  
Investment: \$300k-500k  
Gate KPI: 200 Institutions

## Stage 3



Scale  
Investment: \$1MM+

# Stage 1 - UC Adoption



## \$10k-50k Investment

This stage should be funded internally and used mainly for promotion and professional development across the UC campuses. It is clear that Opt satisfies a classroom need, but due to the crowded nature of the market it is critical that Opt gain significant traction before seeking a larger investment.

Entangled Solutions can assist with messaging and data analysis.

## Goal: 2,000 Professors\*

### ■ Sales & Marketing

- Independent website
- Free to UC customers
- Faculty-sponsored webinars
- System-wide announcements
- Improved site messaging

### ■ Tech & Design

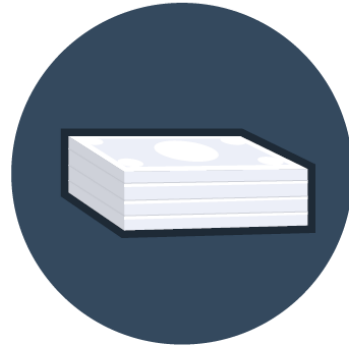
- Additional server capacity
- Full LMS integration capabilities
- Improved site navigation and design

### ■ Structure

- Remain internal

\*Prerequisite to Stage 2

## Stage 2 - Monetization



### \$300k-500k Investment

This stage can be funded internally or externally and is focused on differentiating Opt in two major ways. First, Opt must identify and build 2-3 core features that distinguish it from its competitors. Second, it must innovate a new type of business model in the online polling space that allows educators and students to use it for free, always, while generating significant revenue. Examples of a model include licensing access to a global poll library or providing deep analytics to administrators.

## Goal: 200 Institutions\*

- **Identify Founder**
- **Sales & Marketing**
  - Implement freemium licensing
  - Contract PR
  - Contract SEO
- **Tech & Design**
  - Global poll library
  - Advanced data analytics for administrators
  - Professor/Teacher profiles
  - White labeling capabilities
- **Hires**
  - Sales Rep
  - Programmer (1 or 2)
  - Designer
- **Structure**
  - New entity

\*Prerequisite to Stage 3

## Stage 3 - Scale



### **\$1M+ Investment**

This funding should be sought externally and focused on growing the user base as rapidly as possible. The recommendations on this slide are only examples of how the product and team should develop. At this point, multiple market-driven factors beyond prediction will drive the product success.

#### ■ **Sales & Marketing**

- Develop inside sales force
- Expand reach globally
- Expand into K-12 market

#### ■ **Tech & Design**

- Implement deep courseware integration
- Adapt with market and technology shifts
- Grow poll library dramatically
- Continuously improve analytics