

It's not a fad: Incorporating Mobile Devices in the Classroom

iTeach 2014

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"Disrupting what actually happens in the classroom by instituting student-centric technologies is vital to customize learning for each individual student and to improve motivation for all."

Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns. New York: McGraw Hill, 2008.

Statistics on Mobile Devices



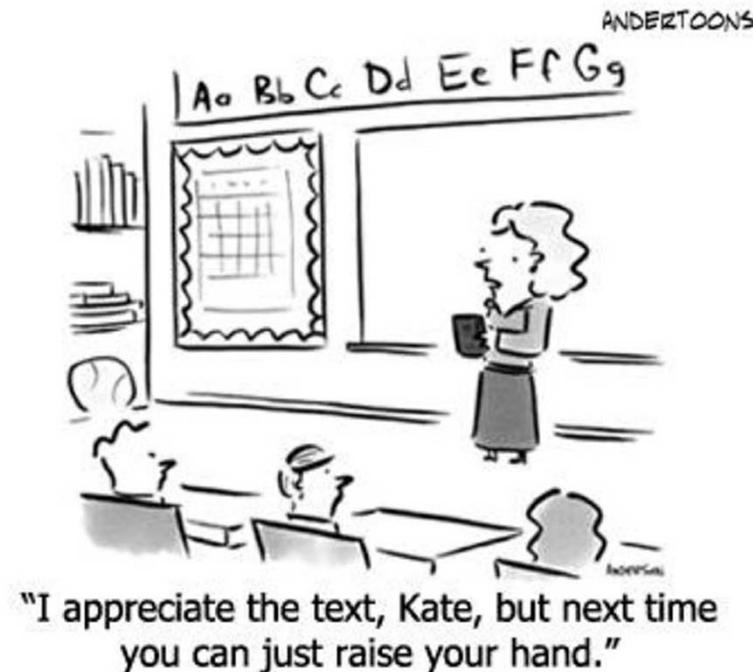
- According to Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, by the end of 2013, the number of mobile-connected devices will exceed the number of people on earth
- Research firm Gartner predicts sales of notebooks and desk-based computers will drop nearly 8% this year.
- The Pew Research Center survey found that the number of people who have a tablet or an e-book reader among those 16 and older now stands at 43%
- Nearly four in ten college students own either a full-size tablet, a small tablet, or both.

Student Survey on Mobile Devices

- A 2013 survey of 1206 college students found
 - Eight in ten believe that tablets can transform the way students learn and make learning more fun.
 - Over six in ten believe that tablets can help students study more efficiently and perform better in classes.
 - Two in three believe that tablets will effectively replace textbooks as we know them today within the next five years
 - Around four in ten students have used a tablet for school work during the current academic year.
 - Two-thirds of students (66%) have used a smartphone for school work during the current school year.

Reluctance

- Seen as a distraction or a fad
- Challenges traditional modes of teaching and learning
- Requires a pedagogical shift to incorporate mobile devices as learning tools



Benefits



- Meeting Students' expectations
 - According to an EDUCAUSE study, students expected instructors to use technology to engage them in the learning process
- From distraction to productive learning tool
 - Facilitates active learning which is thought to be a more substantive form of learning
 - Engages reluctant learners/participants
 - Opportunity to help develop students digital literacy skills



Ideas for the classroom

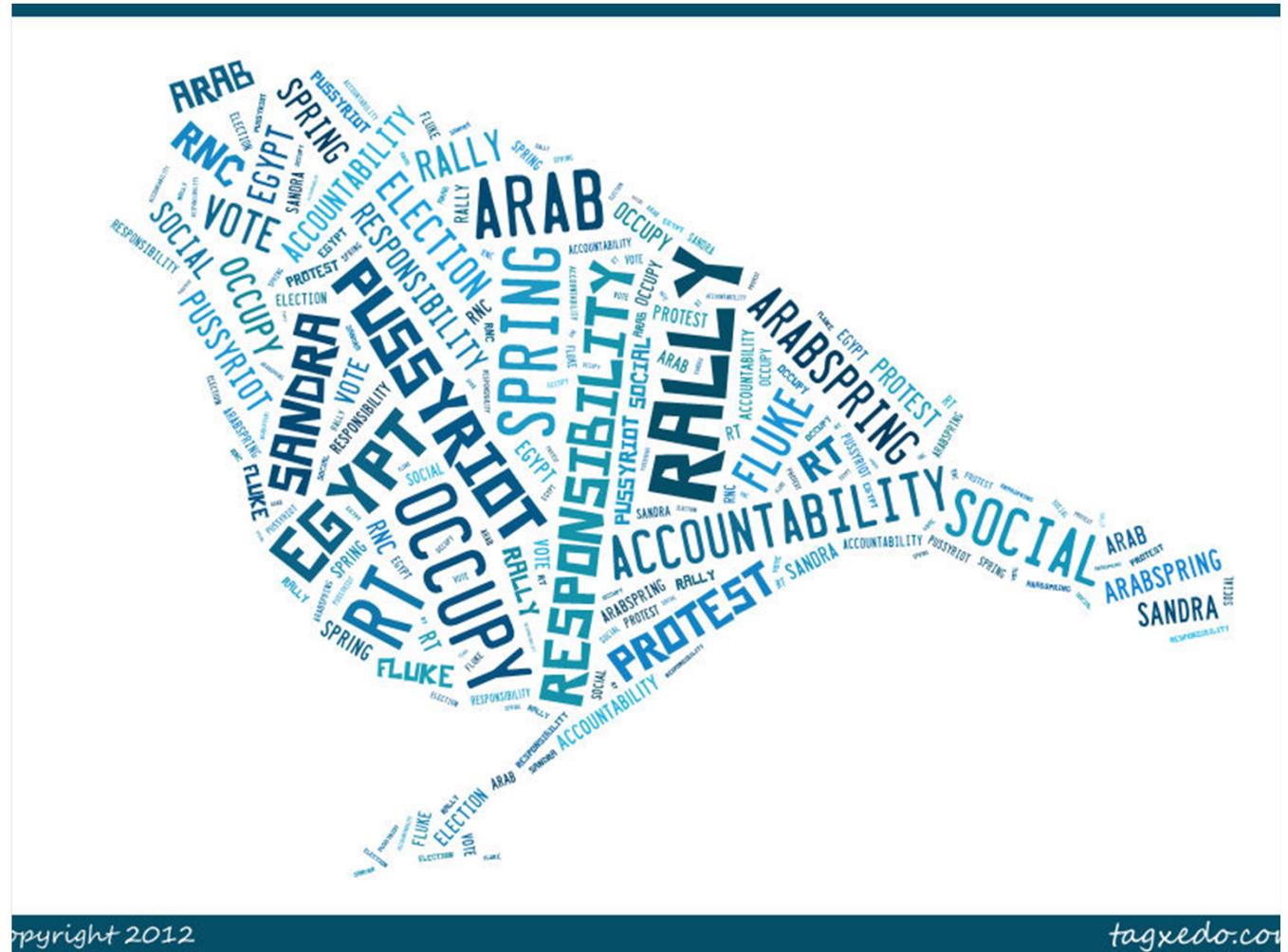


Get students involved

Make a student agreed to technology plan

Make their changes visible

Use free sites
to create
Word Clouds
From Tagxedo



Twitter: Tweeting History



HISTORY ✓
@HISTORY

Lyndon Johnson has taken aboard Air Force One, beco 36th president. histv.co/18

← Reply ↻ Retweet ★ Favorite ⋮ More



Johnson Takes Oath of Office Aboard Force One

Following the assassination of John F. Ke on November 22, 1963, Vice President Ly B. Johnson is sworn in as president of the United States aboard Air Force One befor plane leaves Dallas...

[View on web](#)



HISTORY ✓
@HISTORY



Air Force One, carrying the body of slain President John F. Kennedy, has touched down at Andrews Air Force Base.

histv.co/18QPdKv

← Reply ↻ Retweet ★ Favorite ⋮ More



President Kennedy's coffin is loaded into a Navy ambulance at Andrews...

View photos of President John F. Kennedy and get more information on History.com.

[View on web](#)



Apps to use

- Mobile App Guide: libguides.wustl.edu/mobileapps

The screenshot shows the Washington University Libraries website page for Mobile Apps. The header includes the library name and a 'Ask Us' service icon. The main content area features a breadcrumb trail, a title 'Mobile Apps' with tags, a description, and a navigation menu. A sidebar on the left contains an 'ASK US!' chat window. The main content area is divided into sections for 'MOBILE APPS FOR RESEARCH AND STUDY' and 'ADDITIONAL RESOURCES'. A 'SUGGEST AN APP' section is on the right.

Washington University Libraries

Ask Us
email chat phone text

WU Libraries » Research Guides » Mobile Apps Admin Sign In

Mobile Apps Tags: mobile, mobile_apps, technology

A guide to the best mobile apps for research and study.

Last Updated: Dec 18, 2013 | URL: <http://libguides.wustl.edu/mobileapps> | [Print Guide](#) | [RSS Updates](#) | [SHARE](#) [f](#) [t](#) [e](#)

HOME REFERENCE DATABASES READING NOTETAKING WRITING PRESENTING COLLABORATING FILE STORAGE
DISTANCE ED CAMPUS LIFE CITATION MANAGEMENT

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ASK US!


Olin Reference Help Desk

MOBILE APPS FOR RESEARCH AND STUDY

This guide offers a look at some of the top iPhone/iPad and Android apps for students, faculty, and researchers. It covers a variety of mobile apps for research, reading, writing, note-taking, and other essential tools for studying and publishing on the go.



Comments (0)

ADDITIONAL RESOURCES

Find mobile app reviews from experts and users.

- APpItic
- AppAdvice



SUGGEST AN APP

Is there a mobile app that you find useful for research and study?



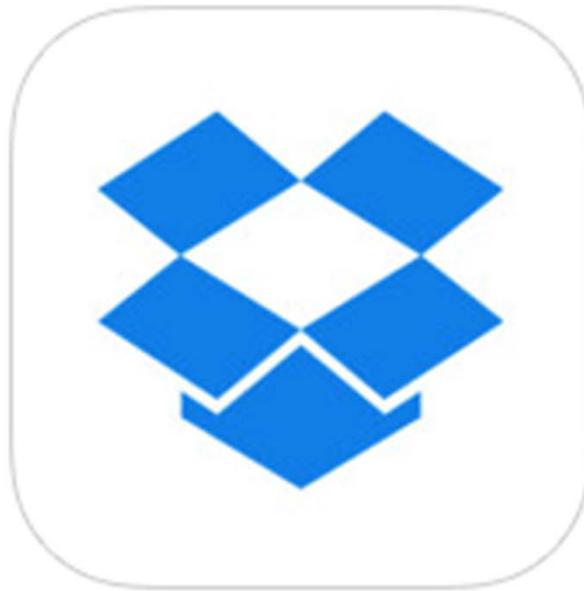
Let us know about it!

[Submit](#)
Comments (0)

Dropbox and Blackboard

dropbox.wustl.edu

bb.wustl.edu



Flipboard

Can also be used
with Windows and
Blackberry
interfaces



Studyblue

www.studyblue.com

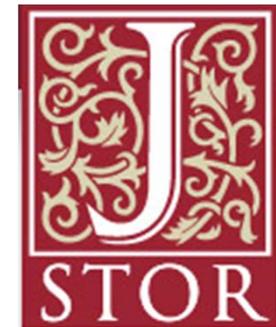
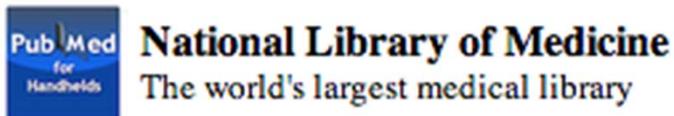


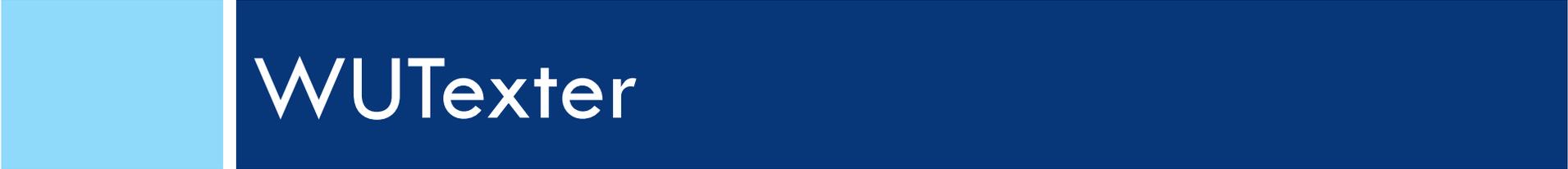
Evernote

evernote.com



Databases, etc. with mobile sites



The logo consists of a horizontal bar divided into two sections. The left section is a light blue square. The right section is a dark blue rectangle containing the text 'WUTexter' in white, sans-serif font.

WUTexter

WUTexter



- Background
- Design
- Features
- Experiences

Background

- Took Bio 2960
 - ▣ HHMI grant with Sally Elgin, biology
 - ▣ She took CSE131
 - ▣ So I took Bio 2960
 - Lectures, lab, exams
 - They use iClicker
- I then served as our department's associate chair
- Anne Bracy and others were also interested in iClicker
- Ordered 50 of them for departmental use

Background

- Ordered 50 iClickers
 - ▣ Prof would pick them up
 - ▣ Distribute them to students (randomly)
 - ▣ Use them as a random sample of students' understanding
- Unexpected problem
 - ▣ 2 batteries per iClicker
 - ▣ 50 iClickers
 - ▣ Heavy !!

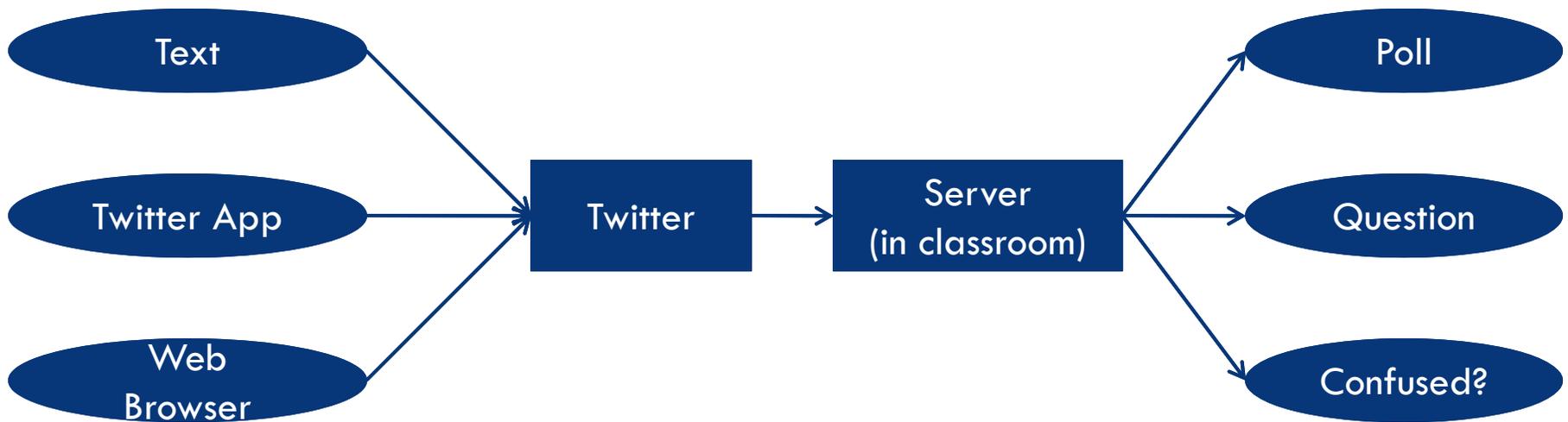
Rethinking

- What can all students do?
 - ▣ Text
 - ▣ Oh, and text
- So all students already have a "clicker"
 - ▣ And they're not afraid to use them
- Also
 - ▣ Range of iClicker is limited (to the room)
 - Won't work for distance learning
 - ▣ iClicker costs \$\$
 - ▣ Desire functionality beyond simple polling

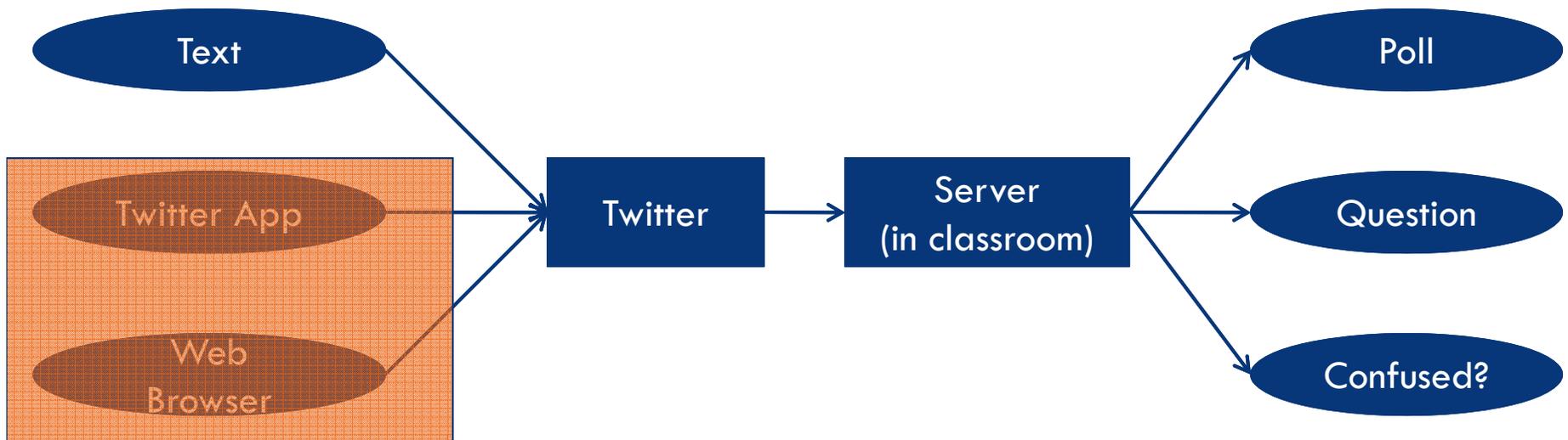
Meanwhile....

- Taught 132
 - ▣ User Interface Design
 - ▣ Concurrency
 - ▣ Network Programming
- Ben Murray
 - ▣ Wanted independent study project
- We designed WUTexter

How does it work?

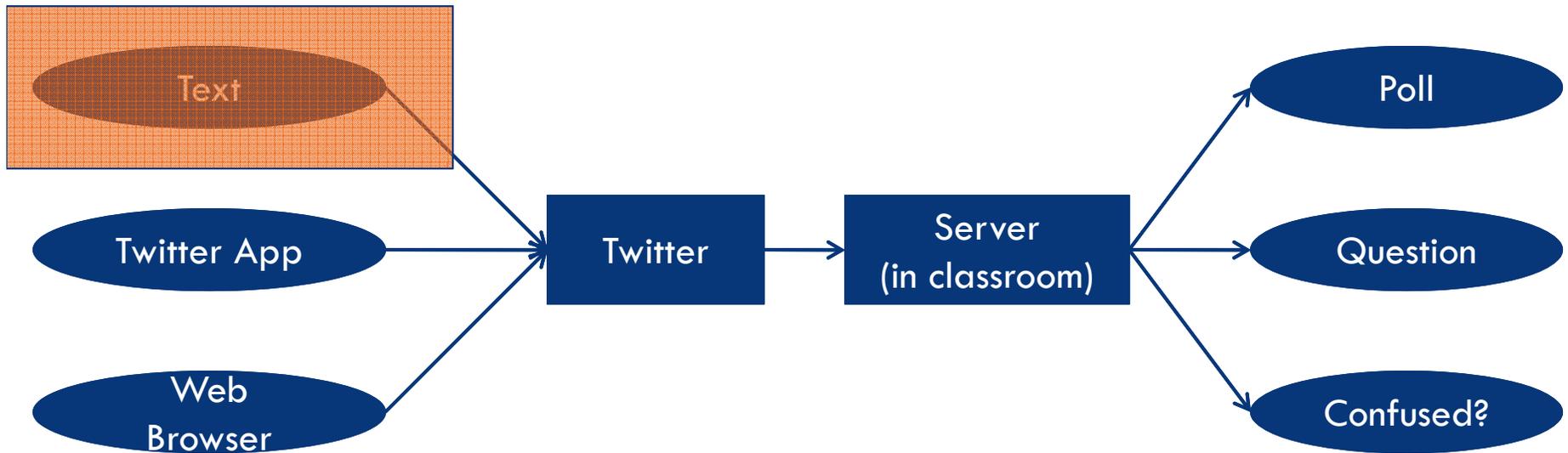


How does it work?



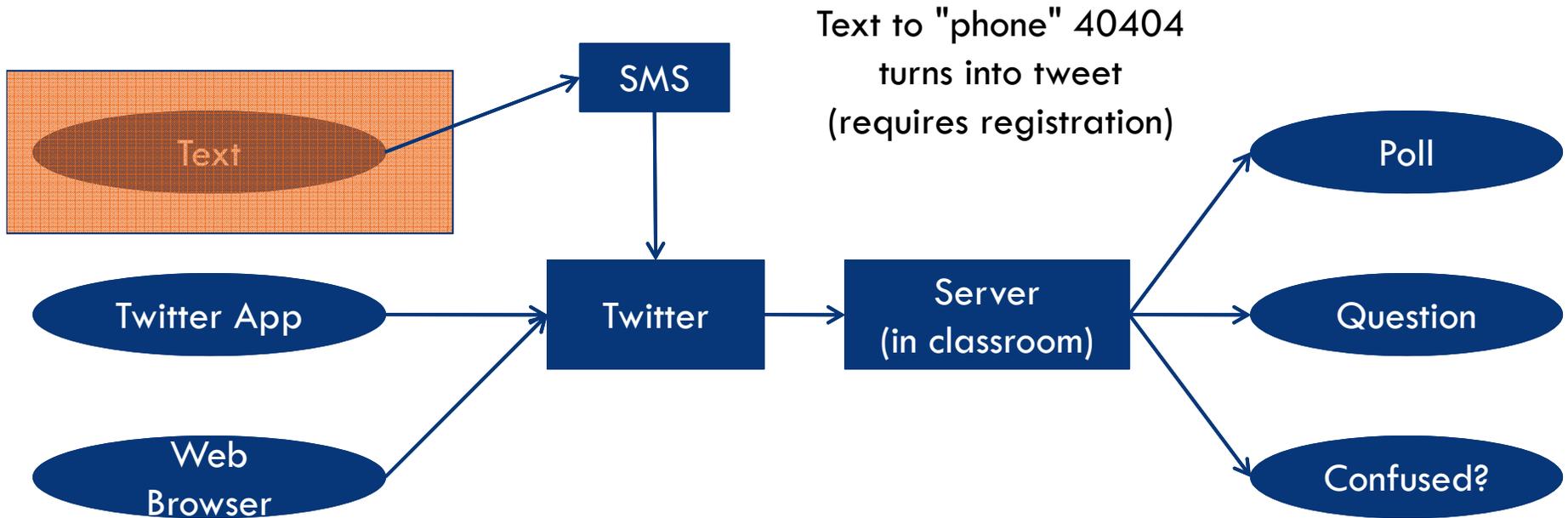
Requires
smart phone

How does it work?



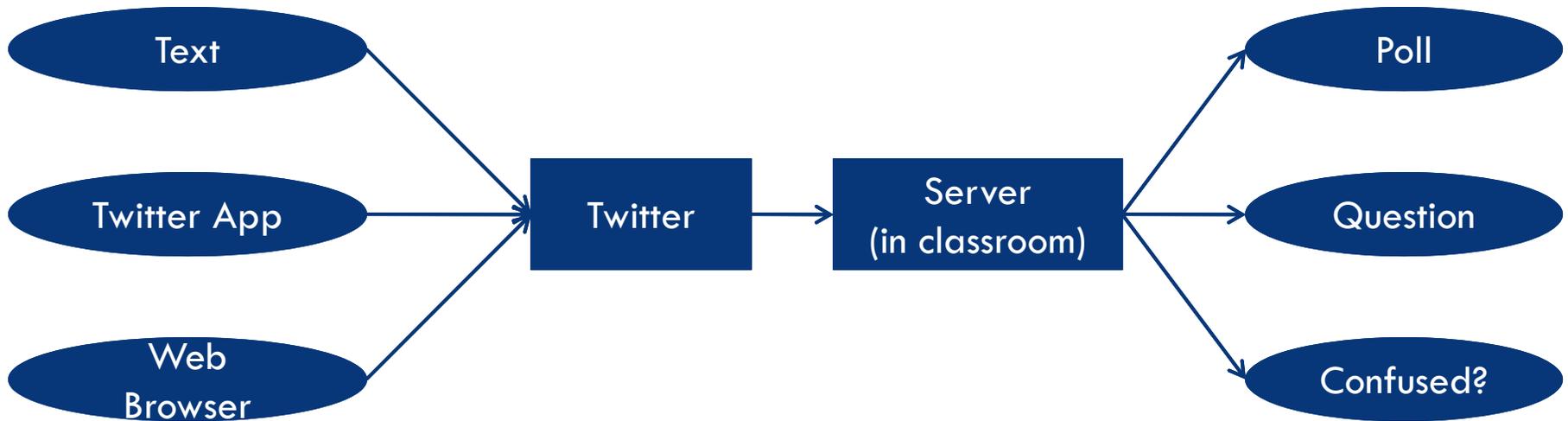
Any phone
can do this

How does it work?



Any phone
can do this

How does it work?



Demo time

Experience

- CSE 260
 - ▣ Roger Chamberlain, prof
 - ▣ Used WUTexter and iClicker (students' choice)
- Some other deployments last year (following iTeach)
- My Spring course
 - ▣ In Crow
 - No WIFI initially (physics faculty resist this I'm told)
 - Had it 2 weeks later, but room had awkward computer setup (to be fair, I didn't state I needed an in-room computer)
- Much to report on 131 this semester

Experience

- CSE 131
 - ▣ Population has exploded
 - 405 started, 374 completed in Fall
 - 238 registered for Spring
 - ~600 students (Bio 2960 max 600 students)
 - ▣ Similar reports from other universities
 - 2nd largest class at Harvard
 - ▣ Lecture 1.5 hours a week
 - ▣ Lab/studio 3 hours a week

Experience

- CSE 131 use of WUTexter
 - ▣ Participation reward (5 course points—probably high)
 - ▣ Credit given just for responding
 - Correct response(s) not required.
 - ▣ Required readings before lecture
 - Pose very simple question to see if students did the reading
 - Pose very ambiguous responses: foster a discussion
 - ▣ Allow students to ask questions
 - Anonymously
 - ▣ Allow feedback as to "speed" of lecture

Experience

- Registration
 - ▣ "I don't have a twitter account"
 - ▣ "I can't have my phone out in class"—it distracts me
 - ▣ Privacy concerns
 - ▣ After a week or two, no problems
- Use in classroom (Lab Sci 300)
 - ▣ Initially poor wireless coverage
 - ▣ NTS made it great overnight
- I don't know if the poll improved students' preparation
 - ▣ But it was a nice way to start class and resulted in some good discussions

Experience

- Anonymous questions
 - ▣ Students loved this
 - ▣ No abuse, only minor misuse (for comic effect at start of class)
- Confuse-o-meter rarely used by students
 - ▣ But course evaluations lean toward "lecture moved at a fast pace"
- In the end
 - ▣ Too much credit for this, so students wanted credit even if they did not participate. Should follow Bio's example
 - ▣ Still, strong participation throughout semester
 - ▣ Participation credit eventually awarded by filling out course eval
- Very useful for sampling behavior (Y/N responses)
 - ▣ Do you plan to attend lab? (Tuesday before Thanksgiving)
 - ▣ Do you plan to take Exam 3 (students could drop one exam)

Next steps

- Currently need one account per class
 - ▣ Switch to one account per instructor
 - ▣ Use #cseblah to denote class
- Hard for instructor to see questions during lecture
 - ▣ Need pop-up window for questions
- Typing of text is burdensome for some devices
 - ▣ Special characters, numbers intermixed, autocorrect

Questions?



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