An Introduction to Perusall

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What's *Perusall* ?

- A new type of collaborative e-book reader
  - Based on extensive (patent-pending) data analytics, behavioral science, and educational research
  - Developed at Harvard by Gary King, Brian Lukoff, Eric Mazur, Kelly Miller
- Students
  - Complete readings; learn more
  - Stay engaged and motivated; enjoy the experience
- Instructors:
  - No extra work; save considerable time
  - Improve classroom teaching
- No cost:
  - Perusall itself is free
  - Readings you have rights to: drag and drop to perusall.com
  - Books or articles for purchase: Perusall obtains content & permissions from publishers. Students usually pay less than for print version.

What Happens When You're Assigned Reading?

- Students
  - They triage — let some courses die to save others
  - How many comply with reading assignments: 20-30%
  - How many buy the book? <50%
  - How to get them to read?
    - Frequent quizzes, extra homework
    - Make grades depend on them
    - Test very specific points from the readings
    - Spend huge amounts of <u>your</u> time!
- Faculty
  - When motivated (preparing for class, or to learn): we do all the reading
  - When unmotivated, forced, or assigned readings?
    - We're the same as the students! Want proof?
    - Do you do human subjects research?
    - Did you take the CITI training?
    - Did you do the reading before trying the test?
    - Did you look at the readings after getting some answers wrong?
- **Perusall**: students do >90% of the reading

So what's wrong? Why don't they read?

Intrinsic motivators are backwards:

- Humans value collective experiences
  (e.g., why the concert costs more than the iTunes download)
- Reading is a solitary experience
  (e.g., the stalling MOOC revolution: Collective $\rightsquigarrow$ Solitary)

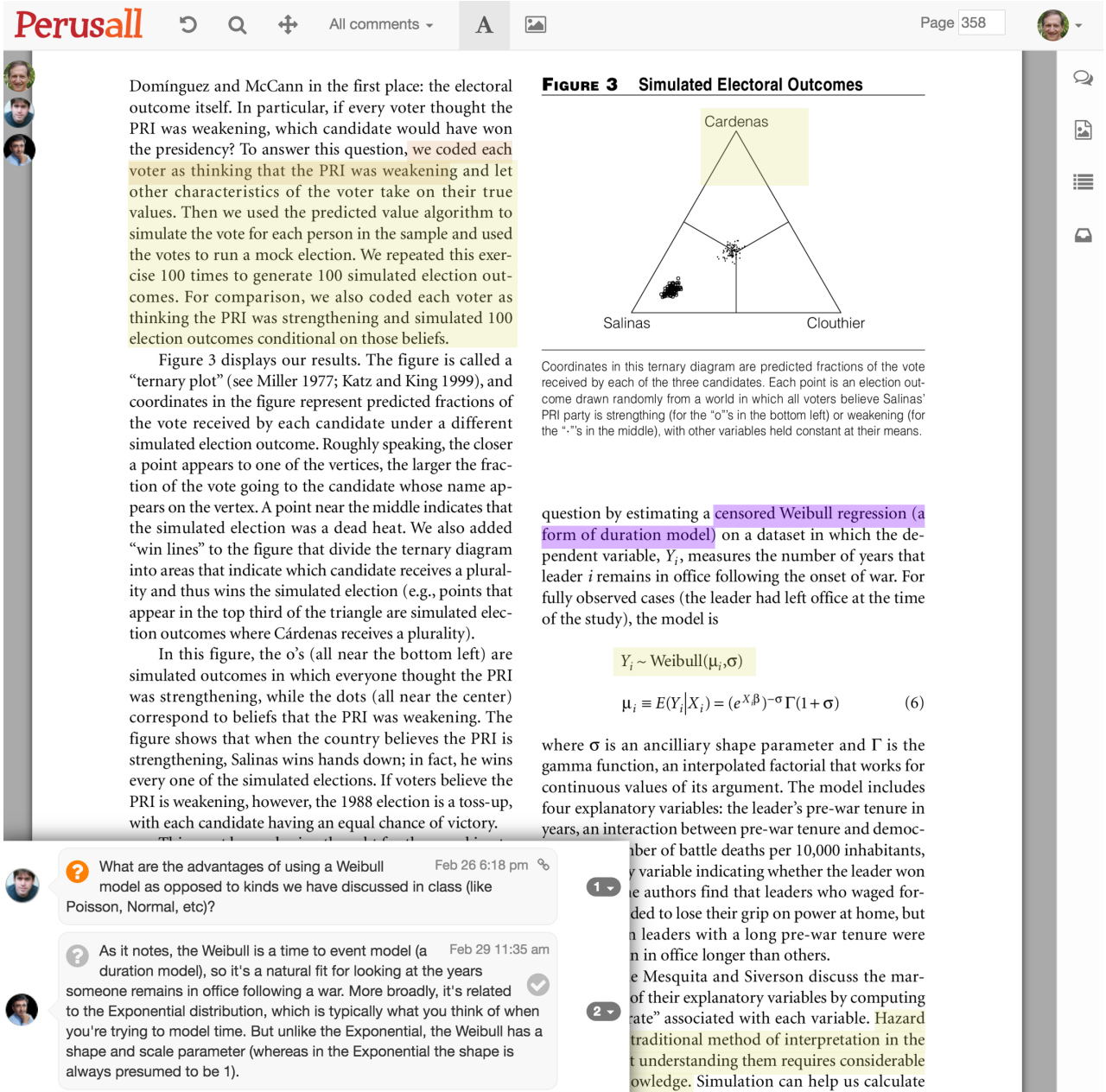
Extrinsic motivators (grades) are weak, unless:

- Faculty waste time preparing quizzes
- Students waste time taking them
- Everyone wastes class or prep time

The *Perusall* Solution

- Transform the reading experience: Solitary $\rightsquigarrow$ Collective
- Extrinsic motivation (no instructor effort): Automated grading

How does it work?



- Assign readings & annotations
- Students share questions, answers, perspectives, external knowledge in threads
- Can annotate text, images, or equations
- Classmates motivate
- Perusall grades engagement (better than TAs can)
- Non-adversarial grading; Perusall nudges students not keeping up

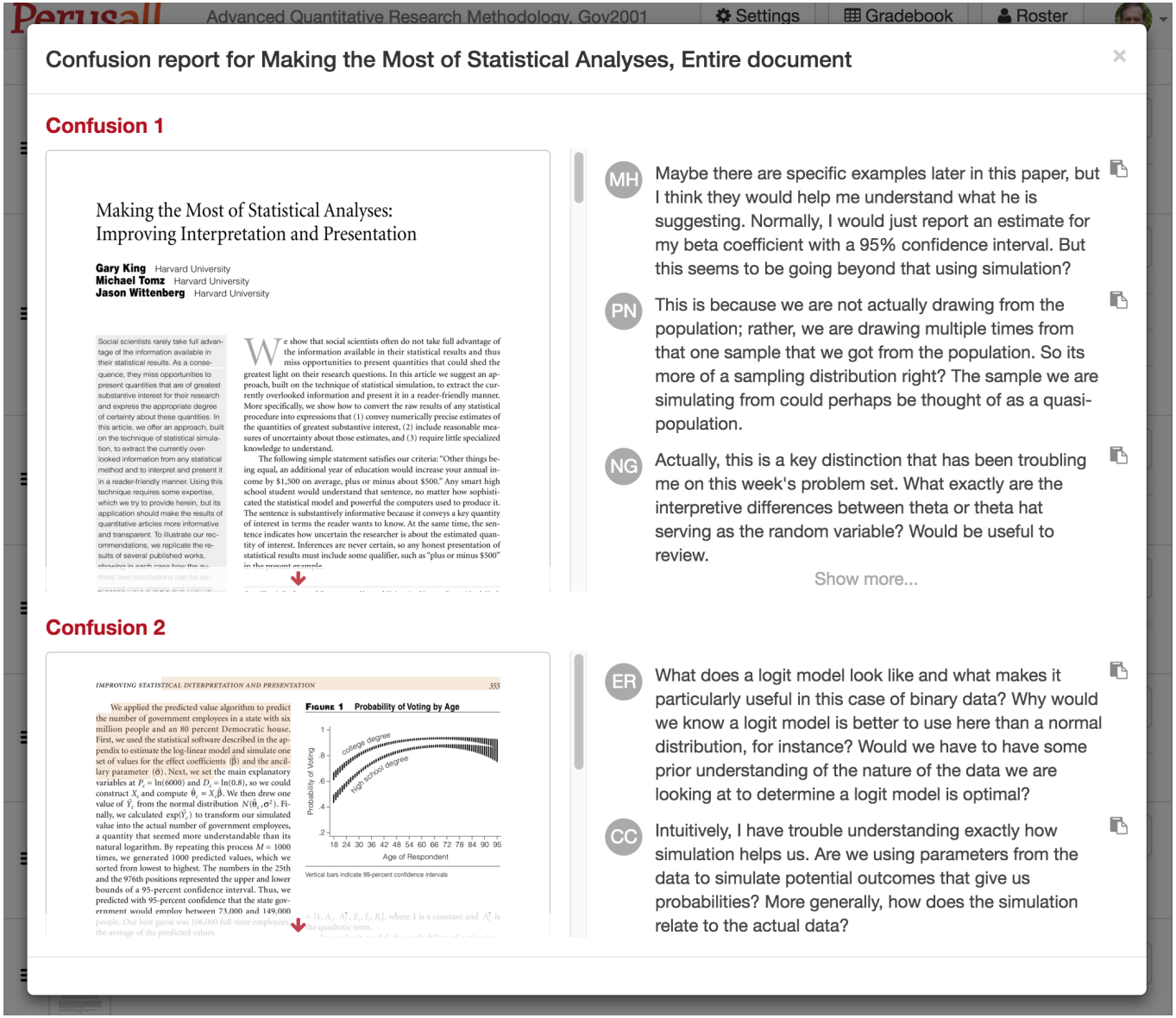
What happens when motivated students get stuck?

- Presently: Eyes off the page
  - Stop reading, hope you get it in class
  - Make believe you understand it and keep reading
  - Wait until office hours
  - Find another student
  - Ask a question via email or a forum
- *Perusall*: Eyes on the page
  - Annotate the readings: ask questions in context
  - Out-of-class experience centered on the readings
  - Get response immediately from other students
  - If you've left, expect email with an answer (can respond within email)
  - When students figure it out together: Learning is deeper and remembered longer

At the start of class, "Any Questions?"

- Presently:
  - Hearing questions and confusions: hugely important in learning
  - They have lots of questions, but no one moves
  - They've just trouped across campus, thinking about their last class, plopped their backpacks and coats down, expecting to be entertained.
  - A big missed opportunity
- ***Perusall*** :
  - Just before class, print a Student Confusion Report with the top 3–4 topics of confusion or engagement, and the best student annotations
  - Walk into class; skip the "any questions" game
  - Go through the topics, recognizing students with good questions or comments

Example Student Confusion Report



- One page, easy to digest before class
- See confusions or engagements in context
- Annotations remain live
- Highlights best student annotations

Automated Engagement

- Classes of any size
  - "Annotation groups" (of about 20) constructed from your class automatically to optimize engagement
  - Perusall can seed your class with annotations from another predicted to generate engagement
- If a student skips pp.61-67
  - Perusall checks for important concepts missed
  - Student gets a private nudge about the point on p.63
- As class nears, Perusall monitors continuously
  - Who hasn't done the reading or isn't engaged
  - Who isn't going to get 100% on the annotation assignment
  - Carefully timed, unobtrusive private notes with help and direction
- Instructor gets: a window on student learning
  - A dashboard with grading suggestions
  - Info about individual student engagement & performance
  - Alerts for students with serious problems

Administrative

- Works differently across fields:
  - In technical fields, students use Perusall to understand what the text explains, to get past hurdles
  - In the humanities, Perusall engages students with the meaning of the text itself
- Integrates with your university's LMS for single sign-on
- FERPA compliant; university administration friendly; no advertising.
- Student identities not shared with corporate recruiters or anyone outside of class
- Students buy content through Perusall (online or via a code from your bookstore); usually pay less
- Publishers love it (keeps their content central; 100% sell-through, no resales, the ultimate solution to IP piracy)
- Many other features; under active development; suggestions welcome

Sign up at Perusall.com