

## APS321: SCIENCE AND TECHNOLOGY IN THE POPULAR MEDIA

We begin our exploration of science and technology in the popular media with the case study of the **L'Aquila earthquake**, in which seven scientists were initially convicted of manslaughter for not having appropriately communicated the probability of an earthquake occurring.

This initial, high stakes case frames an examination of how science and technology is represented by the popular media that focuses on:

- (1) the **tools and techniques** that go into popular science articles, books and multimedia;
- (2) how they are determined by **the institutions** around them, and;
- (3) how these representations shape **the public understanding of science**.

With this theoretical framework, students examine current issues in popular science and explore how recent major scientific developments have been portrayed in the media. Through critical reading of recent popular science texts, we identify both effective rhetorical techniques for communicating to non-specialists and the impact of popular media's "spin" on science and technology studies.



### CONCEPTS:

Participatory Accessibility Narrative Science and Politics  
Model Outreach Journalistic Agency Science by  
Education Process Marketing Conference  
Metaphor Fraud Continuity Audience Journalistic Values  
Journalistic Balance Model Framing Science  
Scientific Values Social Media Appropriation History of PopSci  
Risk Communication Academic Scientific Deficit Model  
Discourse Scientific Method

### ACTIVITIES:



Lectures+ Discussion+ Creative Group Activities eg.

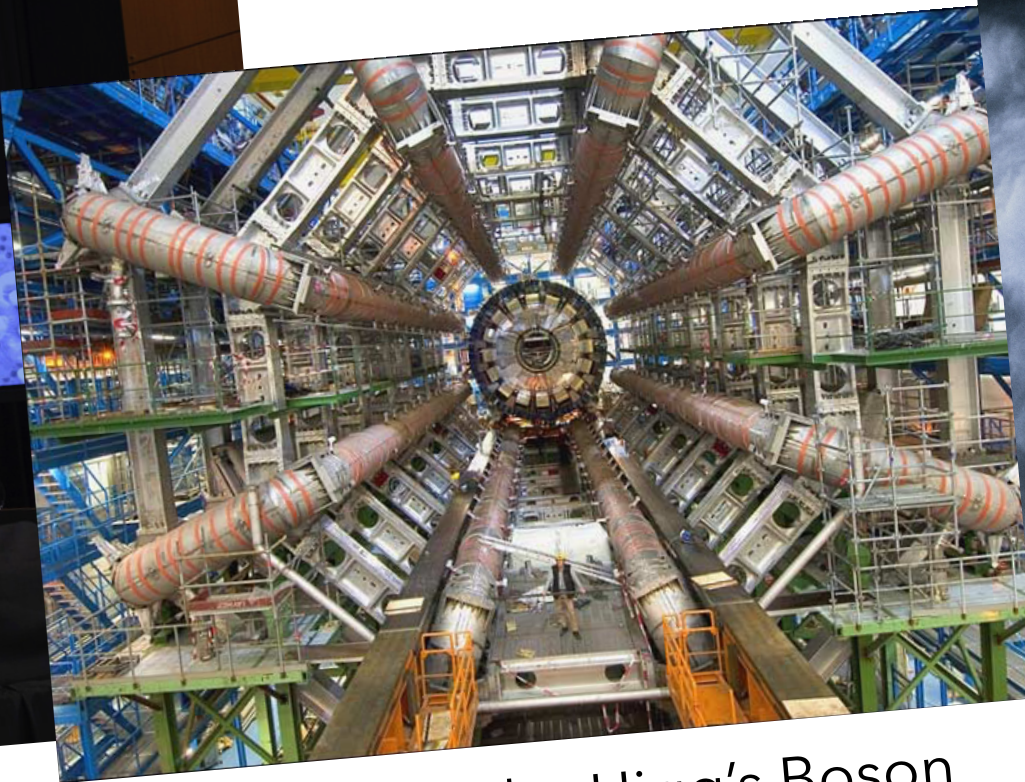
1. Pitch a Mythbusters segment
2. Write a pop sci article
3. Propose outreach strategy
4. Debate new tech. legislation

### CASE STUDIES:

Theoretical concepts in hand, we look at cases including:



NASA's 2010 Astrobiology Presser

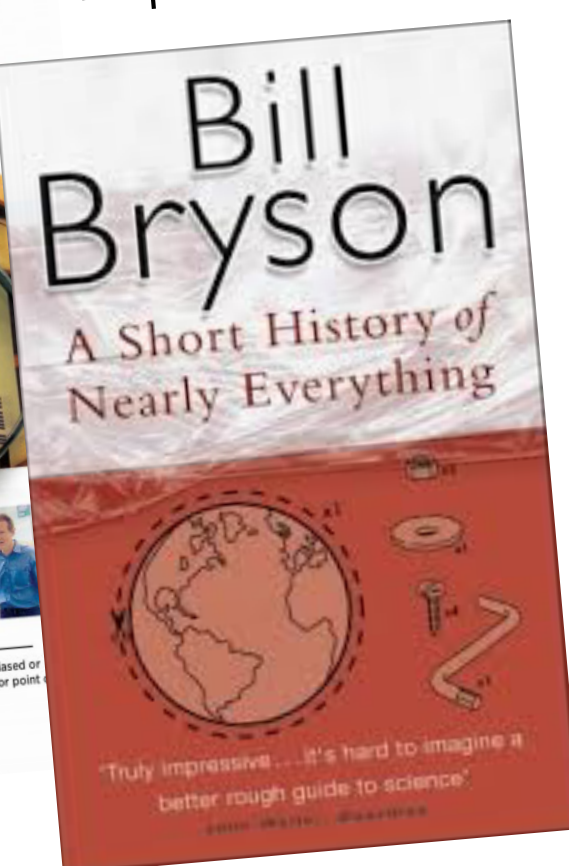


Reporting on the Higg's Boson



Climate Change "Controversy"

PopSci books, such as:



in a variety of media formats  
...

### DELIVERABLES:

Students do two paired sets of assignments, with both critical and creative options.

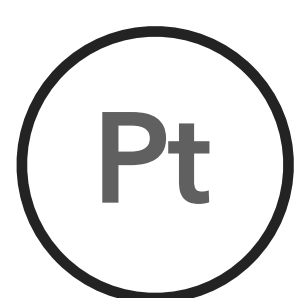
Topics have included:



Presentation analyzing one popular media newspaper story

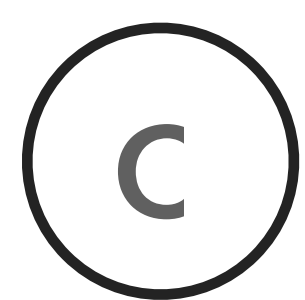
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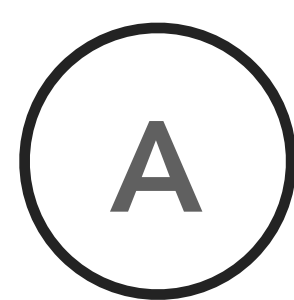


A pitch to the editor for a popular science story

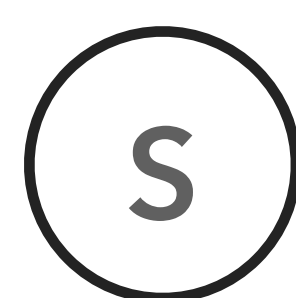
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Critical analysis of the popular media newspaper story

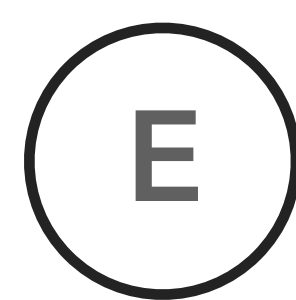


A popular science article + editorial justification



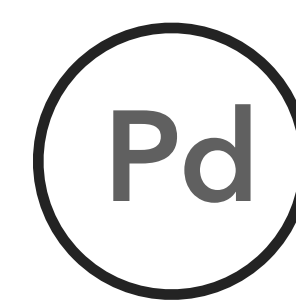
Seminar involving audience on issue or case study in popular science

+



Argumentative essay on issue or case study

or



Podcast + editorial justification on issue/case study



### FEEDBACK:

"It is a great stepping stone for **anyone who is interested in communicating science to a wide range of audiences**. I'm always frustrated because I can't discuss my course material with my art-sci friends, but now I had a way of **portraying what I study** to them in an interesting way."



"I would look at issues through **one dimension** but collaborating with the classmates, hearing their **vastly different opinions given their backgrounds and experiences**, along with the questions and issues brought up through the course material made it a very enjoyable and enlightening experience."

"...When I took humanities and social science courses, it was very interesting but I found it **hard to figure out how to relate** those courses to my engineering experience. Due to the complex nature of scientific material **this course helped develop skills** for a particular purpose ... [those] **that engineers in the real world would need.**"