Comm 3020/STS 3021:  
Science Writing for Media  
Fall 2013

[The course website is on Cornell’s Blackboard site, which will always have the latest syllabus updates. This is FULL VERSION WITH READING LINKS, last updated 29 August 2013.]

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321 Kennedy Hall  
Phone: 255-8310  
b.lewenstein@cornell.edu

Office hours:  
Tuesday, 2:00-4:00 pm in Kennedy 321  
and happily at other times by appointment

Time and location
Class:  MW 11:15-12:05, Kennedy 103  
Lab:  W 12:20-2:15, Mann B30B (computer lab)

Course description

What's the OVERALL GOAL?  
This course is about science journalism (journalism is just one part of “writing for media”), especially "how-to-do-it." It looks at opportunities for covering science, constraints that shape that coverage, and techniques needed to write about science. You will write a lot in this course, and at the end you should know how to begin writing about science for media. We will also talk some about "why-we-do-it," but that’s a secondary goal.

What are we GOING TO ACTUALLY DO?  
Most of our classes will be discussions (based on readings, handouts, and your own reading and watching of media) about science journalism. Some classes will feature outside speakers, both science writers and scientists. Some classes will involve intensive review of the writing you've been doing. Some class discussions will focus on background issues that will help put science journalism in its social context. In the weekly labs, you will write, write, and write some more. All major assignments will be media stories of one kind or another.

Learning Objectives
By the end of this course, you should know…:
- How to define science news
- How to identify audiences for science news and target your writing to them
- How to write basic science news stories
- How to report and write science feature stories
- Key constraints on and opportunities for science journalism, including changes in science journalism as it adapts to a new media world
- Current topics of concern to the science journalism community
- Something of the social context in which science journalism operates

Books and Reading

Most readings will be on Blackboard or online. They are listed in the weekly readings.

One required book is available from your favorite online bookseller:

*Next, read science news – daily!*
Use your favorite site – *New York Times*, CNN, Yahoo!News, your hometown paper’s website, or whatever. More sites are listed in the weekly readings.

*Then, read science journalism commentary – daily!*
Various sites are listed in the weekly readings.

*Bookmark the following websites, and plan to look at them at least once a week (we will use in lab a lot):*
- [http://www.eurekalert.org](http://www.eurekalert.org) (Basic source for science press releases)
- [http://www.alphagalileo.org/](http://www.alphagalileo.org/) (A European counterpart to EurekAlert!)
- [http://www.sciencedaily.com/](http://www.sciencedaily.com/) (An independent alternative to EurekAlert!)

*Finally, some recommended readings* (available via Amazon or your favorite online bookstore)
- Deborah Blum, Mary Knudson, and Robin Marantz Henig (’73), eds., *A Field Guide for Science Writers*, 2nd ed. (2005). (Do not try to use the first edition – there are substantial changes in the second edition.) This is a series of short chapters about various aspects of science journalism – a good intro to the field.

Assignments and grading

- Weekly lab assignments (ungraded)
- #1: Weekly bulletin board posting (ungraded)
- #2: News tweets, due Friday, 6 September
- #3: News brief, due Friday, 13 September
- #4: Speech #1, due Friday, 27 September
#5: Explanatory blog post, due Friday, 11 October
#6: Speech #2, due Friday, 8 November
#7: Book review, due Friday, 6 December
#8: Feature:
  o #8a: Story memo, due Friday, 19 October (ungraded)
  o #8b: Outline, due Friday, 1 November (ungraded)
  o #8c: Feature, due Friday, 22 November
#9: Revised feature, due Friday, 13 December

Grading and related matters

**Deadlines, Spelling, Facts, and Grammar**
Papers are due at the time specified in the assignment. Papers will be graded down for being late. Spelling errors (including typos), incorrect names, and other factual errors will count against your grade. Grammatical problems will enter into the general evaluation of your assignments.

**Computers, typing, and other mechanical details**
See the copy of "Bruce Lewenstein's Idiosyncratic Style Guide for Student Papers," available in the “supplementary materials” section of the Blackboard course site. You are responsible for grammar and stylistic points listed in this document.

**Grades**
Some assignments will be graded; others will merely receive a check-mark. In general, grades reflect the following evaluation:

A = Excellent story. Worthy of prominent play in a newspaper, magazine, or major website after minor editing. Reporting shows enterprise; writing shows flair.
B = Good story. Publishable with little editing. Well-written, reported, and edited. OK on a good blog.
C = Fair story, but one that requires substantial editing. A wordy, slow-paced story. A story that needs more reporting.
D = Dull story. Unpublishable without rewriting or major surgery during editing. Careless or sloppy writing. Unsupported material.
F = Unpublishable story. Poor in content or structure.

All assignments are required. Before calculating the final grade, I will drop the lowest score of the main assignments (see below). If you are missing more than 2 assignments (including ungraded ones), or if you are missing the final feature story, you will fail the course.

The final grade will be based on:
- Tweets, news brief, speeches (2), blog post, book review: 50% (lowest score dropped)
- Feature story: 25%
- Labs, bulletin board, class participation, and professor's discretion (25%). I use my discretion mainly to help those who have shown real improvement and effort through the semester. Be warned, however, that I can use it in ways less beneficial to you when someone tries to slouch through the semester.
Academic responsibility
As students at Cornell, you are subject to the University's Code of Academic Integrity. ([http://cuinfo.cornell.edu/Academic/AIC.html](http://cuinfo.cornell.edu/Academic/AIC.html)). You should familiarize yourself with the full code. The key principles are:

1. A student shall in no way misrepresent his or her work.
2. A student shall in no way fraudulently or unfairly advance his or her academic position.
3. A student shall refuse to be a party to another student's failure to maintain academic integrity.
4. A student shall not in any other manner violate the principle of academic integrity.

If you violate the code, you may be assessed severe penalties (including potentially failing the course). Please take the time to review the code. If you have any questions about whether something falls under the code, or about any other aspect of the code, please feel free to ask.

The following comments on the Code apply for this course only.

1. After you have written an article, you may ask classmates or friends to comment on it. Indeed, I encourage you to do so. Commenting is not editing; it is merely reading and saying, "What do you mean here?" or "This isn't clear," or "Did you check this fact?" or similar remarks. You may not ask for detailed grammatical, stylistic, or similar comments, which would constitute editing.

2. You should use standard journalistic forms to cite the source of any information you use. You will learn these forms in class; common ones are: "According to Cornell geologist Frank Rhodes," "in an article recently published by Jeff Hancock," or "a Nanobiotechnology Center spokesperson said."

Disabilities
Cornell University (as an institution) and I (as a human being and as instructor of this course) are committed to full inclusion in education for all persons. Services and reasonable accommodations are available to persons with temporary and permanent disabilities when conditions cause barriers to equal educational opportunity. The Office of Student Disability Services ([http://www.clt.cornell.edu/campus/sds/index.html](http://www.clt.cornell.edu/campus/sds/index.html)) determines the eligibility of students to receive formal accommodations and works collaboratively with the student and university faculty and staff to recommend appropriate accommodations. Please visit the Student Disabilities Services site for more information about accessibility at Cornell.
Tentative Course Schedule

Note: Links to the readings appear on Blackboard. Note that readings may change as the semester progresses; you are responsible for changes posted on Blackboard.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics, readings, assignments</th>
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</table>
| 1    | 28 Aug | *What is science, what is media, and so what is science in media?*

LAB 1: Tweet the news

**Readings etc.:**

It's a bit tricky to assign readings for this week, since our first class is also our last class of the week. But you should be looking at *lots and lots* of science journalism online. Some places to start:

- [http://www.livescience.com](http://www.livescience.com)
- [http://whyfiles.org](http://whyfiles.org)
- [http://www.scientificamerican.com](http://www.scientificamerican.com)
- [http://www.popsci.com](http://www.popsci.com)
- [http://www.wired.com/wiredscience/](http://www.wired.com/wiredscience/)
- [http://www.slate.com/articles/health_and_science.html](http://www.slate.com/articles/health_and_science.html)

Several blog sites have good science journalism, as well:


Indeed, a question we'll have this semester is: Is there a difference between blogs and journalism?

Also, start getting the habit of reading science journalism commentary:

- [http://ksitracker.mit.edu](http://ksitracker.mit.edu) (Experienced science journalists review the day's news, and also comment on science journalism)
- [http://www.cjr.org/the_observatory/](http://www.cjr.org/the_observatory/) (Commentary on current science journalism)
- [http://www.healthnewsreview.org/blog/](http://www.healthnewsreview.org/blog/) (Commentary specifically about health journalism)
- Consider subscribing to *The SciComm Daily* ([http://paper.li/ThilinaH/1335399008#](http://paper.li/ThilinaH/1335399008#)), an online aggregator of commentary and other items about science communication
- Another aggregator: on Flipboard, subscribe to the #scicomm channel ([https://flipboard.com/section/science-communication-bSG0Gi](https://flipboard.com/section/science-communication-bSG0Gi))
Finally, for those new to journalism, here are some basic "Journalism 101" resources. I'll assign specific sections of them later in the semester, but you might want to start exploring them now.

- Any “introduction to media writing” textbook
- [http://www.courses.vcu.edu/ENG-jeh/BeginningReporting/Introduction/home.htm](http://www.courses.vcu.edu/ENG-jeh/BeginningReporting/Introduction/home.htm)
- [http://cubreporters.org/crashcourse](http://cubreporters.org/crashcourse)

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<tr>
<th>2</th>
<th>2, 4 Sep</th>
<th>Basic science news</th>
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<tr>
<td></td>
<td>NOTE: No class on Monday, 2 September – Labor Day</td>
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<td>LAB 2: News briefs</td>
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<td><strong>DUE: Friday, 6 Sep: News tweets</strong></td>
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<td><strong>Readings etc.:</strong></td>
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<td>In 1989, the late science writer Alton Blakeslee (a second-generation science journalist; the family dynasty is now up to 4 generations of science writers) provided us with some hard-won science writing wisdom. The file is posted on Blackboard.</td>
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<td></td>
<td>For more systematic introductions to defining the news, see:</td>
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<td></td>
<td>- <a href="http://www.courses.vcu.edu/ENG-jeh/BeginningReporting/Prewriting/natureofnews.htm">http://www.courses.vcu.edu/ENG-jeh/BeginningReporting/Prewriting/natureofnews.htm</a></td>
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<td>- <a href="http://www.slideshare.net/cubreporters/whatisnews">http://www.slideshare.net/cubreporters/whatisnews</a></td>
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<td></td>
<td>And here are more science news sites. Feel free to explore others that you enjoy. Remember, as you read stories, observe what makes them &quot;news.&quot; What makes you want to click on them? How are they organized? What topics do they cover? What topics don't they cover?</td>
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<td>- CNN</td>
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<td>- Yahoo!</td>
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</table>
| 3 | 9, 11 Sep | **Story structures**  
LAB 3: Speeches  

**Thursday, 12 September:** Special panel on journalism and food security  
**Friday, 13 September:** Special meeting with visiting science journalists  
**DUE:** Friday, 13 Sep: News Brief #1  

**Readings etc.:**  
Media stories can be written in many ways. Traditionally, print news stories came in a few varieties:  
- [http://www.courses.vcu.edu/ENG-jeh/BeginningReporting/Introduction/home.htm](http://www.courses.vcu.edu/ENG-jeh/BeginningReporting/Introduction/home.htm)  
  - Read all the links in the "Writing" (middle) column  

In the new media world, it’s harder to specify standard structures. Blogs, Twitter, Vine, YouTube, Facebook postings, podcasts...they all have their own forms, which are rapidly changing, and which will probably be different by the end of the semester. Some basic introductions:  
- [http://www.slideshare.net/cubreporters/video-journalism](http://www.slideshare.net/cubreporters/video-journalism)  
- [http://www.slideshare.net/cubreporters/podcasting-101-3597705](http://www.slideshare.net/cubreporters/podcasting-101-3597705)  

(Updated 8/25/13 -- come back for more updates) |

| 4 | 16, 18 Sep | **Documenting the news (reporting, quotations)**  
LAB 4: Speeches **[guest scientist for press conference]**  

**Readings etc.:**  

**REPORTING**  

A group of freelance science writers recently published *The Science Writers' Handbook* (2013). Two chapters are especially useful for thinking about reporting:  
- von Bubnoff, "Getting the story, and getting it right" *[in Science Writers’*
A number of the short lessons at http://cubreporters.org are useful for learning to be a reporter:

- How to cover breaking news
- How to cover speeches
- Why the live interview is best
- Journalism quotes

On the "Beginning Reporting" website (http://www.courses.vcu.edu/ENG-jeh/BeginningReporting/Introduction/home.htm), most of the links in the "Prewriting" column will be helpful, as well.

Finally, a handout on the mechanics of using quotations in posted on Blackboard.

SUPPLEMENTARY READINGS

Jonah Lehrer was a prominent science writer, writing regularly for Wired and other outlets until he was hired by The New Yorker. In 2012, in a series of cascading revelations, he was shown to have plagiarized frequently (sometimes from himself, sometimes from others), to have misquoted some of the sources he did use, and to have made up some of the quotes he used. A number of other science writers commented on his case, and their comments tell us something about doing the hard work of reporting and using quotations. Some of the comments are at:

- Curtis Brainard, 1 August 2012: http://www.cjr.org/the_observatory/jonah_lehrer_motives_fabricati.php?page=all
- Seth Mnookin, 3 August 2012: http://blogs.plos.org/thepanicvirus/2012/08/03/jonah-lehrers-missing-compass/
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<th>Date</th>
<th>Notes</th>
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| 23, 25 Sep | Documenting the news (cont.)

NOTE: No class on Monday, 23 September

LAB 5: Reporting

DUE: Friday, 27 Sep: Speech #1

Readings etc.:

Many blog posts about science journalism are essentially critiques of reporting. Here are a few that appeared just this summer. For your posts on the blog this week, look for more examples of critiques of the reporting in science journalism.

- Kloor, 2013: *"When newspapers collaborate with NGOs"
- The Economist, 2013: *"Journalistic deficit disorder"
- Gelman, 2013: *"Science journalism and the art of expressing uncertainty"
- Schwitzer, 2013: *"Jacked-up java stories"
- Entine, 2013: *"Can GMO corn cause allergies?"

We will miss one class session this week. Instead of class, watch the following video. It was a speech this past summer by Andy Revkin, who writes the dot.Earth blog for the *New York Times* (and who is a new A. D. White Professor at Large here at Cornell): [http://scienceonline.com/live/?id=79](http://scienceonline.com/live/?id=79) (skip ahead to time 10:45 for the introduction to Revkin and his speech).

SUPPLEMENTARY MATERIAL

Of possible interest to those interested in the "science of science communication" will be a live webcast on Monday and Tuesday of this week (23-24 September) of the National Academy of Sciences Sackler Colloquium on science communication: [http://www.nasonline.org/programs/sackler-colloquia/upcoming-colloquia/agenda-science-communication-II.html](http://www.nasonline.org/programs/sackler-colloquia/upcoming-colloquia/agenda-science-communication-II.html).

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<tr>
<th>30 Sep, 2 Oct</th>
<th>Simplifying and Explanations</th>
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</thead>
</table>

LAB 6: Simplifying

Readings etc.:

- Handout on simplifying [posted on Blackboard]
- Meredith, 2010: *Explaining Research*, ch. 6 [posted on Blackboard]
- Rowan, 1999: “Effective Explanation” [posted on Blackboard]
- Recent examples of great science writing online
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<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
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<tr>
<td>7</td>
<td>7, 9 Oct</td>
<td><strong>Simplifying and explanations</strong></td>
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<td>LAB 7: Explanations</td>
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<td><strong>DUE: Friday, 11 October: Explanatory blog post</strong></td>
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<td>Readings etc.:</td>
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<td>- Blum et al., 2005: <em>Field Guide to Science Writing</em>, ch. 4 [posted on Blackboard]</td>
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<td>- Nijhuis, 2013: “Sculpting the story” [in <em>Science Writers’ Handbook</em>]</td>
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<td>- More recent examples of great science writing online</td>
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<td>8</td>
<td>14, 16 Oct</td>
<td><strong>Stepping back: The context for science journalism</strong></td>
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<td><strong>NOTE: Fall Break, NO CLASS on Monday, 14 Oct</strong></td>
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<td>Lab 8: Features</td>
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<td></td>
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<td><strong>DUE: Friday, 18 October: Feature memo</strong></td>
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<td>Readings etc.:</td>
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<td><strong>SUPPLEMENTARY</strong></td>
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<td>- Julie Gould, a UK science writer, interviews science communicators: <a href="http://speakingofscience.juliegould.net/interviews/">http://speakingofscience.juliegould.net/interviews/</a></td>
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<td>- Some prominent science writers talk about how they got into the field:</td>
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<td>9</td>
<td>21, 23 Oct</td>
<td><strong>Planning a feature story</strong></td>
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<td>LAB 9: Profiles</td>
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</table>
Readings etc.:

- Franklin, 1979: “Mrs. Kelly’s Monster” [annotated story posted on Blackboard]
  - Interview with Franklin about how he wrote the story, [http://www.niemanstoryboard.org/2012/08/24/line-by-line-mrs-kellys-monster-how-jon-franklin-wrote-a-classic/](http://www.niemanstoryboard.org/2012/08/24/line-by-line-mrs-kellys-monster-how-jon-franklin-wrote-a-classic/)
- The Nieman Storyboard project (at the Nieman Foundation for Journalism at Harvard) has examples of many excellent features stories, combined with interviews with the authors. The overall list of examples: [http://www.niemanstoryboard.org/category/notable-narratives/](http://www.niemanstoryboard.org/category/notable-narratives/)
- Some specific articles and commentaries related to science writing include:

10  28, 30 Oct  *Working on your features*

Class will not meet this week. You should use this time to work intensively on your feature stories. A couple of videos of talks by science writers will also be available.

LAB 10: NO LAB

DUE: Friday, 1 November: Feature outline

Readings etc.:

- David Pogue, technology columnist for *New York Times*, May 2012: [http://www.youtube.com/watch?v=XRaMVE14SCQ](http://www.youtube.com/watch?v=XRaMVE14SCQ)
- Tim Radford, longtime science writer for *The Guardian* [LINK TO COME]

11  4, 6 Nov  *The modern feature: cross-platform publishing*
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<th>Date</th>
<th>Details</th>
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<tr>
<td>12</td>
<td><strong>Writing about Health, Risk, and Numbers</strong></td>
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<tr>
<td>11, 13 Nov</td>
<td>LAB 12: Dealing with numbers</td>
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<td>Readings etc.:</td>
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<td>• Health <em>News Review</em> blog, <a href="http://www.healthnewsreview.org/blog/">http://www.healthnewsreview.org/blog/</a> (see also the link to “story reviews” on this site)</td>
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<td>• Ornes, 2013: “Numbers” [<em>in Science Writers’ Handbook</em>]</td>
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<td></td>
<td>• Additional readings to come</td>
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<td>13</td>
<td><strong>Science journalism when science has been “media-lized”</strong></td>
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<tr>
<td>18, 20 Nov</td>
<td>LAB 13: Cultural science writing (reviews)</td>
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NOTE: No class on Monday, 4 November

LAB 11: Writing for new media (blogs, tweeting)

**DUE: Friday, 8 November: Speech #2**

Readings etc.:

Various science writers have talked about the role of blogs and other new media, especially for scientists trying to reach the public(s) directly. Nothing definitive yet, but here are some samples:

**OVERVIEWS**
- [https://twitterforscientists.squarespace.com/](https://twitterforscientists.squarespace.com/) (a guide to tweeting your science)
- [http://www.nature.com/spoton/tag/social-media-case-study/](http://www.nature.com/spoton/tag/social-media-case-study/) (a series of case studies)

**INDIVIDUAL COMMENTARIES**
- [http://uncexchanges.org/2013/06/17/why-i-tweet/](http://uncexchanges.org/2013/06/17/why-i-tweet/)
- [http://blogs.nature.com/soapboxscience/2013/08/14/how-to-learn-by-blogging-about-science](http://blogs.nature.com/soapboxscience/2013/08/14/how-to-learn-by-blogging-about-science)
DUE: Friday, 22 November: Feature story

Readings etc.:

- Weingart, 2012: “Lure of the mass media…” [TO BE POSTED ON BLACKBOARD] (WARNING: this is a dense academic article, not a piece of journalism or a breezy commentary like most of what we’ve read this semester)
- Controversies and commentaries on science journalism today, especially various blogs on media coverage of climate change, evolution, autism, etc. *As you find related items, post them to the class blog.*
  - MORE TO COME

14 Nov

Covering science in culture

NOTE: Thanksgiving. Class on Wednesday will meet in Prof. Lewenstein’s office

LAB 14: No Lab

Readings etc.:

The *New York Times* "Book Review" section has some pretty good science book reviews. Just a few examples are:

- http://www.nytimes.com/2010/06/13/books/review/Farmelo-t.html

The *Times*’s museum critic also frequently reviews science museums. Some examples:

- LINKS TO COME

Both *Science* and *Nature* sometimes review art, music, and other cultural productions.

- http://www.sciencemag.org/content/341/6144/344.1.full (Summer reading, 2013)
- http://www.sciencemag.org/content/340/6131/433.1.full?sid=a3ded770-8a03-
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<tbody>
<tr>
<td>15</td>
<td>3, 4 Dec</td>
<td><strong>Putting all the pieces together: Science writing for media</strong></td>
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<td>LAB 15: Science writing for media</td>
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<td><strong>DUE: Friday, 6 December: Book review</strong></td>
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<td>Readings etc.:</td>
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<tr>
<td></td>
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<td>Back to the beginning: look at current news websites and commentary, see what you think of them now!</td>
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<tr>
<td>Finals</td>
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<td><strong>REVISED FEATURE DUE:</strong></td>
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<td>Friday, 13 December, 4:30 pm</td>
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<td>(the time an exam for this course would have ended)</td>
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- [4c79-92ee-efb573543995](http://www.sciencemag.org/content/334/6057/763.1.full?sid=a99ddc89-134b-4368-9bdd-06493a61a736) (sculptures)
- [http://www.sciencemag.org/content/334/6057/763.1.full?sid=a99ddc89-134b-4368-9bdd-06493a61a736](http://www.sciencemag.org/content/334/6057/763.1.full?sid=a99ddc89-134b-4368-9bdd-06493a61a736) (a festival of literature and arts)
- [http://www.nature.com.proxy.library.cornell.edu/nature/journal/v414/n6860/full/414151a0.html](http://www.nature.com.proxy.library.cornell.edu/nature/journal/v414/n6860/full/414151a0.html)
- [http://www.nature.com.proxy.library.cornell.edu/nature/journal/v434/n7037/full/4341071a.html](http://www.nature.com.proxy.library.cornell.edu/nature/journal/v434/n7037/full/4341071a.html) (download .pdf of play review)