

Communicating Science Policy Op-Ed

Science for Policy Seminar

November 26, 2014

Columbia University – Applied Physics

Assignment (Part 3 of 3):

Due before Finals

- Review and understand status
- Formulate and propose (in writing) policy options
- Discuss and understand each option within your Team
- ➡ Submit your Policy Briefing Report (one to three pages)
- ➡ Submit your Op-Ed (from 400 to 1,200 words)

Op-Ed Examples online...

Oct 1	Example Policy Recommendations: • Strategic Defence Initiative and Directed Energy Weapons (APS, 1987) • Assessment of the Prospects for Inertial Fusion Energy (NRC, 2013) • National Plan Genome Initiative Five-Year Plan: 2014-2018 (NSTC, 2014) • U.S. Research Enterprise (PCAST, 2012, press release and webcast) • Strategic Plan for U.S. Particle Physics in the Global Context (HEP, 2014 with summaries from the P5 committee) Example Science Editorials: • Put a Little Science in Your Life, (NYT, 2008) Prof. Brian Greene (Columbia University) • The First Church of Robotics, (NYT, 2010) by Jaron Lanier (Microsoft) • How Seawater Can Power the World, (NYT, 2011) by Prof. Stewart Prager (Princeton) • With Tight Research Budgets, Is There Room for the Eternal Promise of Fusion? (NYT, 2012) Andrew Revkin • Engineering Food for All, (NYT, 2011) Prof. Nina Fedoroff (Penn State) • Science Is the Key to Growth, (NYT, 2012) Prof. Neal Lane (Rice University) • Is Algebra Necessary? (NYT, 2012) by Prof. Andrew Hacker (CUNY) • The Conversion of a Climate-Change Skeptic, (NYT, 2012) Prof. Richard Muller (UC Berkeley) • Overpopulation Is Not the Problem, (NYT, 2013) by Prof. Erle Ellis (U Maryland) • If You See Something, Say Something, (NYT, 2014) Prof. Michael Mann (Penn State) • Eight (No, Nine!) Problems With Big Data, (NYT, 2014) Profs. Gary Marcus and Ernest Davis (NYU) • How to Get a Job at Google, Part 2 (NYT, 2014) by Thomas Friedman
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- Trish Hall (NY Times) “Op-Ed and You”
- Glynnis MacNicol (Capital New York) “Secrets of Op-Ed revealed...”
- Charles Poladian (IBT Pulse) “Space Junk ...”
- Andrew Mazzanti (Harvard Crimson) “STEM Concern”
- Caleb Scharf (Columbia) LA Times “Hunt in Cosmos...”
- Joe Nocera (NY Times) “Committed to Carbon Goals”

The New York Times

October 13, 2013

Op-Ed and You

By TRISH HALL

I often go out and talk to people who are interested in getting Op-Eds published in The Times. I do it because we need you, the reader, the writer. People certainly don't write for us for the money; the payment, frankly, is peanuts. They write for the influence, for the chance to reach an audience, to say something that's been bothering them, driving them crazy, something that no one else seems to be saying.

We appreciate that, and we need you. We need a diversity of voices and opinions about a range of topics. Anything can be an Op-Ed. We're not only interested in policy, politics or government. We're interested in everything, if it's opinionated and we believe our readers will find it worth reading. We are especially interested in finding points of view that are different from those expressed in Times editorials.

...

<http://www.nytimes.com/2013/10/14/opinion/op-ed-and-you.html>



Secrets of the ‘Times’ Op-Ed pages revealed!



By Glynnis MacNicol

12:54 p.m. | May. 18, 2012



FOLLOW THIS REPORTER

How high is the rate *The New York Times* pays contributors to its Op-Ed section?

“It’s very low,” said Trish Hall, who edits the section, at a panel discussion last night at the [92nd Street Y](#) that promised to divulge to lucky ticket-buyers the secret to writing opinion pieces that actually get published at the *Times*. “It’s a little embarrassing to say. “

But she did say: “Generally \$150,” adding somewhat sheepishly, “it just went up.”

The secret to making it into the highly regarded and still influential New York Times Op-Ed pages is equally nebulous.

“What I’m trying to do is surprise people,” said Hall, who also mentioned that she has held pieces for as long as two years waiting for the perfect peg. Yes, two years.

“I’ve run a lot of things that I think are just important to run, because I think people should know it,” said Hall, by way of explaining her we-are-definitely-not-in-Gawkerland anymore philosophy of editing. “If it’s not popular it’s not popular; it actually doesn’t matter that much, because my job is to try to have that mix.”

And fear not conservatives! Both Feyer and Hall were quick to note they “welcome conservative views.”

<http://www.capitalnewyork.com/article/media/2012/05/5944438/secrets-times-op-ed-pages-revealed>

Secrets of the 'Times' Op-Ed pages revealed!

Some pro tips: Hall can spot P.R. pitches a mile away and they are rarely interesting. Paste your submission in the body of your email ("I don't open attachments from people I don't know"). Write the entire piece ("we don't accept things on spec"). Personal is good. Said Hall: "When I look at what's been really popular many of them have a personal story wrapped into a policy issue. "

Email everything! Hall reads her email every day, including the spam folder: "Every morning I look through the trash," she said. It was in her inbox that she discovered Greg Smith's "[Why I Am Leaving Goldman Sachs](#)," this year's most popular op-ed piece to date.

"There it was in my email one day, and I had lots of long conversations with him about 'did he really want to do this?'" He did.

And for good reason. The endless conversation about the death of print aside, The New York Times still packs a serious punch. And some potentially serious cash: Greg Smith reportedly scored a \$1.5 million book deal based his op-ed, which will no doubt sweeten the \$150 he was paid for the initial piece.

<http://www.capitalnewyork.com/article/media/2012/05/5944438/secrets-times-op-ed-pages-revealed>



The New York Times

Op-Ed and You

By TRISH HALL

We get a flood of submissions, but there's never too much good writing in the world. There is always room for more. So what makes the cut? That's what people always ask me, so I'll try to explain the process.

Most pieces we publish are between 400 and 1200 words. They can be longer when they arrive, but not so long that they're traumatizing.

Submissions that are reacting to news of the world are of great value to us, especially if they arrive very quickly.

Write in your own voice. If you're funny, be funny. Don't write the way you think important people write, or the way you think important pieces should sound.

And it's best to focus very specifically on something; if you write about the general problem of prisons in the United States, the odds are that it will seem too familiar. But if you are a prisoner in California and you have just gone on a hunger strike and you want to tell us about it – now, that we would like to read. We are normal humans (relatively speaking).

We like to read conversational English that pulls us along. That means that if an article is written with lots of jargon, we probably won't like it.

<http://www.nytimes.com/2013/10/14/opinion/op-ed-and-you.html>



The New York Times

Op-Ed and You

By TRISH HALL

We don't just wait for articles to arrive. ... But once we have accepted a piece, we will do everything we can to make sure it runs on one of our platforms. ...

We have several news assistants who have a variety of duties; their most important one is to read the submissions that go to opinion@nytimes.com. They pull out everything that seems to have potential and send those pieces to several of the editors. Then those editors review the submissions. If they find something interesting, then they send it to an internal group e-mail that goes to the editors in New York, Hong Kong, Paris and London who are responsible for editing the pieces on the daily pages in all our editions, in Opinionator, and in the Sunday Review. ...

What happens when your article is accepted?

<http://www.nytimes.com/2013/10/14/opinion/op-ed-and-you.html>



The New York Times

What happens when your article is accepted?

First, you'll get a contract giving us the right to publish it and laying out some of your responsibilities. The most important ones have to do with originality and truthfulness. You can't plagiarize yourself, or someone else, and we won't run something that has appeared in another publication, either print or digital. We request that you disclose anything that might be seen as a conflict of interest, financial or otherwise: ... We need to know.

We also need all of the material that supports the facts in your story. That's the biggest surprise to some people. Yes, we do fact check. Do we do it perfectly? Of course not.

Once you have signed the contract, an editor will work with you to make the piece acceptable to both us and you. Sometimes that is complicated. We will try to help you strengthen your argument. We want your thinking to win converts.

In the end, you are the author. If you are unhappy with an edit, you can take back the piece. We would never run something over the objections of a writer, and the writer, always gets to see it before we run it. The writer however, never gets to choose the headline, or the art that goes with a piece.

So please, get in touch. Please don't be mad if we don't answer your e-mail. We get so many. But you can be assured we will read it. Many thanks for being our readers, and our writers.

<http://www.nytimes.com/2013/10/14/opinion/op-ed-and-you.html>

Charges In Brief

- Considering the importance of space activities to our nation, I ask your panel to assess the scientific and technical strategies now being followed to prevent and deter aggression against U.S. space infrastructure and to respond rapidly to a deliberate or accidental event that may cause damaging debris contamination.
- Considering the importance of STEM education to our nation's future, I ask your panel to assess the priorities among the proposed new investments in STEM education and research and recommend policies that would make most effective use of these investments and programs.
- Considering the rapid progress of detecting and characterizing exoplanets, I ask your panel to assess the scientific and technical strategies now being followed to find and identify exoplanets with the potential to support human life.
- Considering the importance of coal use for U.S. electricity production, I ask your panel to assess the priorities among the potential new technologies that reduce carbon dioxide emissions from coal-fired power plants and to meet the new EPA targets while continuing to benefit from our nation's large coal resources

Space Junk: Will Philae Join The More Than 500,000 Pieces Of Debris Already In Space? [INFOGRAPHIC]

By Charles Poladian | Mon, 2014-11-17 16:43

The European Space Agency's historic comet landing last week drew a global audience, but the event didn't go exactly as **planned**. The Philae lander was unable to deploy its harpoons into the comet's surface and fell into a crevice on its side. Philae's current location prevents it from getting sunlight to charge its batteries. But if the lander, which already has gathered a large amount of scientific data, can't be made to function again, it will join a vast amount of space debris -- approximately 500,000 pieces of debris -- already orbiting Earth.

Philae is unlikely to join the space debris near Earth, but those roughly 500,000 pieces of debris pose risks that space agencies around the world are actively monitoring.

For one thing, the amount of space debris is growing. In 2007, a Chinese anti-satellite test added 3,000 pieces of debris, while a collision between a Russian satellite and a U.S. commercial satellite added 2,000 bits of debris, **NASA** reported.

For another thing, many pieces of debris are large enough to be dangerous. There are 20,000 pieces of debris larger than a softball orbiting Earth and there are millions of pieces of untrackable debris which could damage satellites. The International Space Station has "debris avoidance measures" which can be launched in **30 hours**.

Cleaning up the orbiting garbage would be a massive task. While NASA, the **European Space Agency** and **Roscosmos** have plans to monitor space debris, cleaning up the junk is another problem that has yet to be solved. Among U.S. agencies, the Federal Aviation Administration, the Federal Communications Commission and the National Oceanic and Atmospheric Administration are responsible for commercial space licenses, communications satellites and commercial Earth-focused craft, respectively, **Space.com** reported. As such, each of these agencies may have a claim to manage debris cleanup.

While Philae may not add to the clutter orbiting Earth, it could be the latest bit of defunct technology in space.

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World Science Festival created a space junk infographic that shows Earth's extraterrestrial garbage. It's not all high-priced hardware. It includes the ashes of author Gene Roddenberry and a very large amount of frozen urine.

Section Size is a STEM Concern Too

By ANDREW MAZZANTI November 20, 2014

Andrew Mazzanti '17 is a human developmental and regenerative biology concentrator

For nearly a year, the Harvard Teaching Campaign has been seeking to cap section sizes at 12 students apiece, and since its inception, most of the support for the campaign has come from non-STEM fields. A simple look at the [campaign's endorsements](#) shows that while the philosophy, sociology, and English departments all support smaller section sizes, there has yet to be a STEM field to follow up. Thus far, the list of faculty signers is missing STEM faculty.

I'm a science concentrator and pre-med. And I believe that students like myself need to express a vested interest in this campaign too.

For most students, science education consists of large lectures, topics of imposing difficulty, and frantic attempts to absorb as much information as possible. What we often miss from this standardized approach is the chance to truly talk through the subject.

Often in section, I feel that I should not ask questions, as I do not want to "hog" section time for my own inquiries. With a smaller section size, this problem can be remedied by creating a more intimate learning environment where students can ask questions and attempt to better explore the class material.

An April 2014 Undergraduate Council [teaching survey](#) indicated that nearly 80 percent of respondents believed "smaller section sizes encourage them to participate." This participation should be the spirit of scientific inquiry.

...

My section experiences push me to urge section size caps for all of my classes—not just those within my concentration. While there are arguments specific to STEM classes, STEM students participate in Harvard's other educational offerings, such as the General Education program. And if Harvard really believes in the spirit of a liberal arts education, it should ensure the best learning environment in all fields by capping section size.

The only remaining question is, will enough of us take action to support the campaign and to have the departments to which we belong declare their support as well?

Please vote yes on a section cap.

Los Angeles Times



Op-Ed Hunt in cosmos could tell us whether Earthlings are special

By **CALEB SCHARF**

NOVEMBER 21, 2014, 6:54 PM

Caleb Scharf is director of astrobiology at Columbia University and author of "The Copernicus Complex" and "Gravity's Engines."

Humans have had quite a ride in the 500 years since Copernicus. We've built and tested a rational vision of the universe in which our circumstances, and those of the Earth, are unexceptional and insignificant in the grand scheme of things. We are fleeting specks on a crumb of cosmic dust, among countless other crumbs in the briefest sliver of a far bigger story.

Los Angeles Times



Op-Ed Hunt in cosmos could tell us whether Earthlings are special

By **CALEB SCHARF**

Caleb Scharf is director of astrobiology at Columbia University and author of "The Copernicus Complex" and "Gravity's Engines."

Clues may be emerging from more parochial directions. The remarkable new science of exoplanets — worlds orbiting other stars — is at this frontline. On the face of it, the discovery of a wealth of exoplanets simply verifies the doctrine of mediocrity that Copernicus helped seed. We're surrounded by billions of planetary systems that could, in principle, play host to life.

But exoplanets are incredibly diverse, ranging from giant balls of gas to small rocky worlds and large super-Earths, the likes of which don't exist around the Sun. Their configurations also come in an unanticipated range: from tightly packed clusters of planets to systems with highly elliptical orbits and histories of playing gravitational dodgem. And the types of stars that harbor planets include those that are far more numerous than the family the Sun belongs to.

Yet this might be just a cautionary tale of how we make inferences. Events can take on new meanings after the fact. For example, when something lucky takes place — a winning lottery ticket, for instance — we can always trace the history of small choices leading to that point. Except that history becomes relevant only in retrospect — the snap decision to play, a number that sticks in your head — regardless of whether the end product is actually rare or common.

Speculation has almost had its day, though. The solution to understanding life's cosmic status is at hand. Whether it's through the eyes of a robot on Mars, the probing of a dark ocean on the moon Europa, or in the telltale chemical imbalances seen on a distant exoplanet, the hunt is afoot. The challenges are extreme, but scientists' efforts to count the instances of biological origins across the galaxy will yield an empirical — not philosophical — answer. It will let us crack the puzzle open.

Committed to Carbon Goals

NOV. 24, 2014

**Joe Nocera**

Since the early 1990s, the consensus view in the climate science community has been that if the world is going to escape the most catastrophic consequences of climate change, it needs to keep the average global temperature from rising more than 2 degrees Celsius, compared with preindustrial levels. A few years ago, the Presidential Climate Action Project [issued a report](#) in which it estimated that to meet that goal, global carbon dioxide emissions would need to be reduced by 60 percent by 2050 — and the industrialized world would need to reduce its emissions by 80 percent.



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Committed to Carbon Goals

NOV. 24, 2014

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So how is he planning to get that 90 percent reduction? One answer is solar power, in which NRG has invested some \$5 billion. Crane is a big believer in the eventual importance of solar, both for consumers — he foresees a day when millions of Americans rely on solar as their primary power source — and for power companies. Even so, Crane told me that solar generates only 3,000 megawatts of the company’s potential for 53,000.

And then there’s coal. When I asked Crane if he would have to eliminate coal to reach his goals, he said no. Coal, he said, will continue to play a big role. A carbon tax would be a great way of reducing emissions. But that is politically impossible.

So, instead, the carbon will need to be captured and then put to some good use. At one of its Texas power plants, NRG is teaming up with JX Nippon of Japan in a \$1 billion joint venture to build a carbon-capturing capacity, which it expects will capture 1.6 million tons of carbon each year — some 90 percent of the plant’s emissions. He is also convinced that that carbon will eventually be used to create liquid fuel or get embedded in cement. “We could rebuild America’s roadways with embedded carbon from coal.”



Share

Policy Option Briefing Report

- *To whom addressed?*
- **Context** (one paragraph). Why is (are) your policy option(s) important? Relevant? Timely?
- **Key Recommendation(s)**. One sentence each, with one or two paragraphs detailing recommended **action(s)**.
- **Outline of attachments**: backup details, analyses, figures, summaries of previous work, ...
- *Total: three pages*

Assignment (Part 3 of 3):

Due before Finals

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