



Communicating the Future:  
Engaging Science, Engaging Scientists



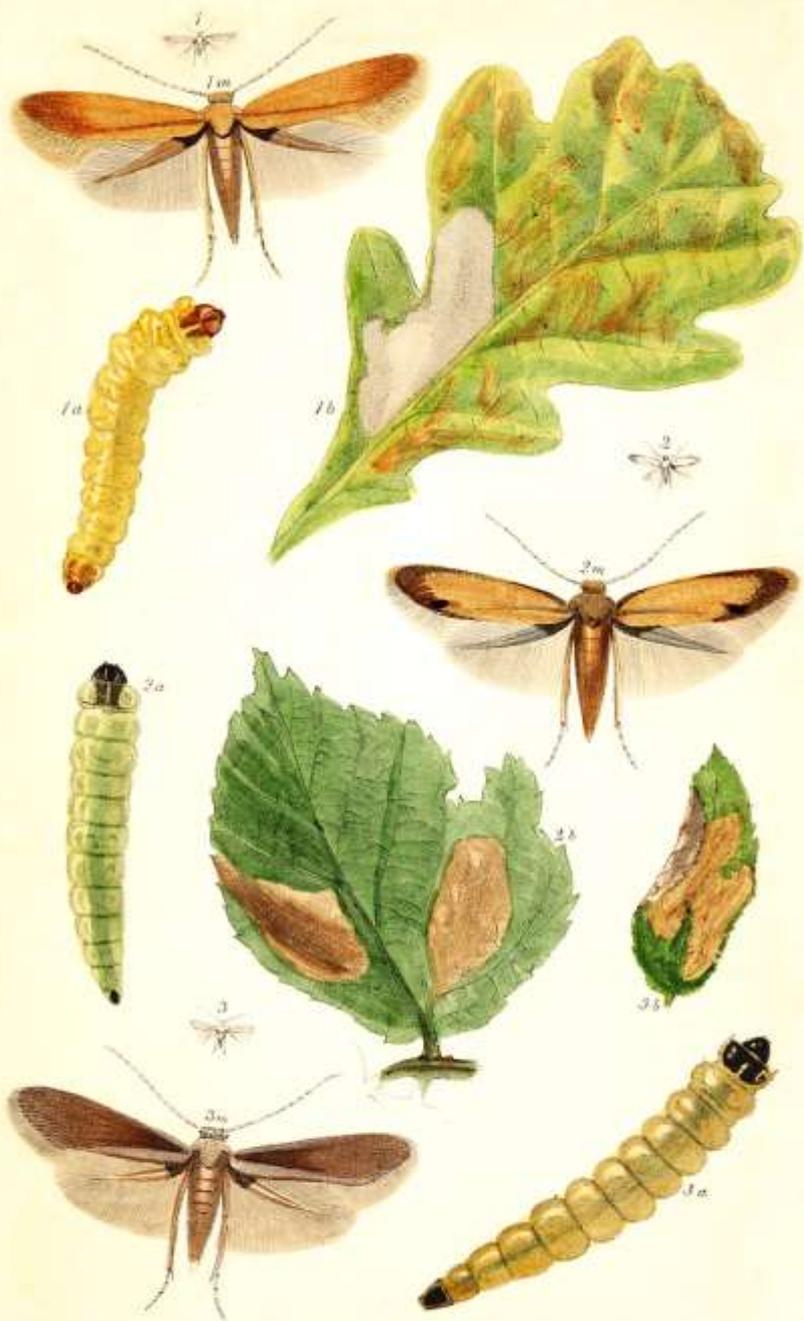
Rick Borchelt, Office of Science, DOE – July 2015











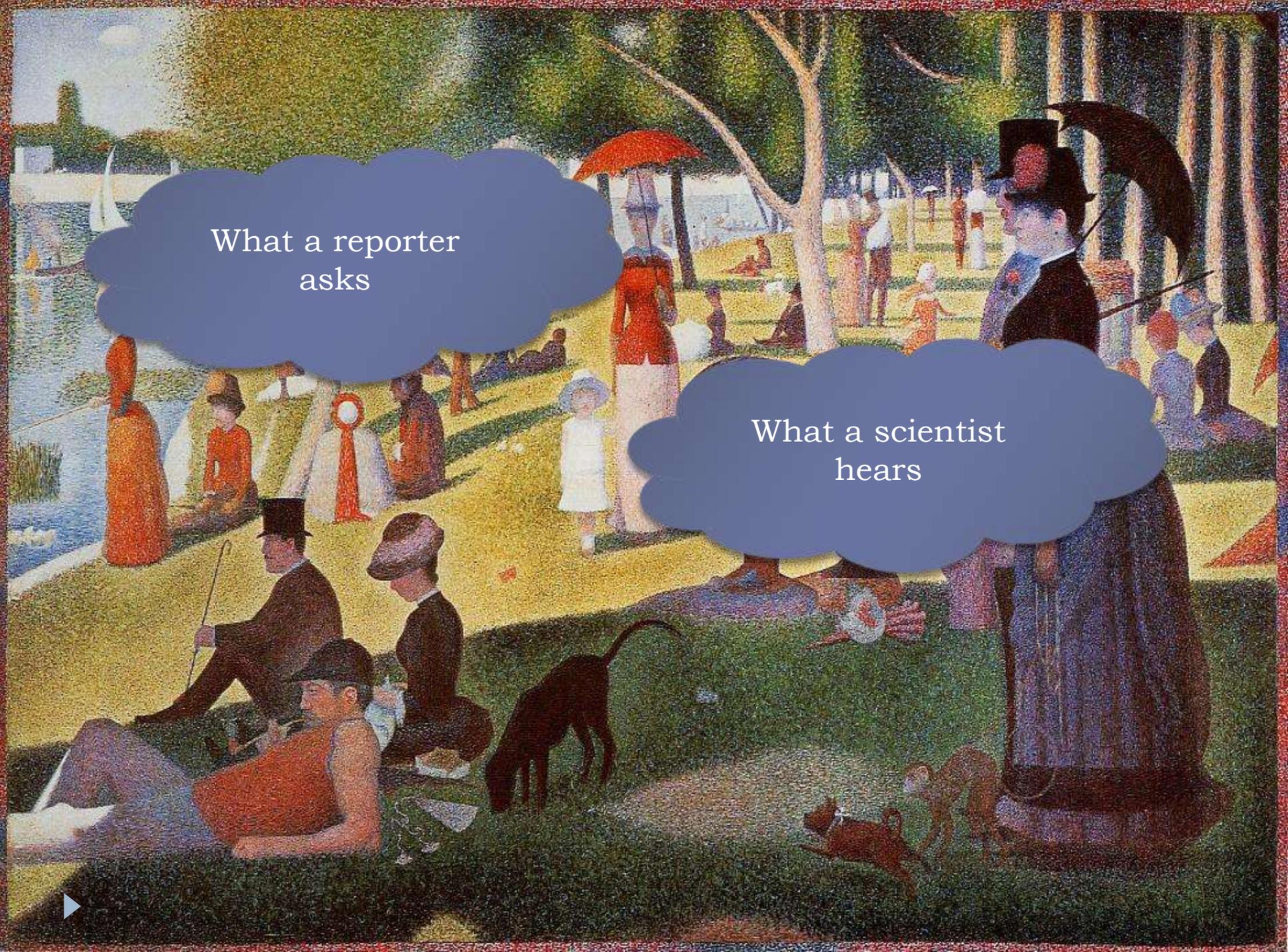
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Everything I learned about science  
communication I learned in entomology  
grad school.

Not.

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What a reporter  
asks

What a scientist  
hears

# Elements of the SC Communications Strategy

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- ▶ Should be planned as a **lifecycle** process, not a one-off activity, integrated with the science
- ▶ Should include ways to reach various stakeholder audiences **where they already are** (as opposed to trying to drag their eyes to a new web site)
- ▶ Should be aimed more at **curation** than **creation**: We generally want to focus attention, not throw more information out there
- ▶ Communications is a **strategy**, not a tactic
- ▶ The “**general public**” is not our audience



# Planning for the long term

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# Lifecycle Communications Planning -- 1

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- ▶ Three Stages

- ▶ Awareness

- ▶ Understanding

- ▶ Support

This is not necessarily a step-wise process, and presence of one does not necessarily indicate another



# Lifecycle Communications Planning --2

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- ▶ These repeating cycles can also be thought of as:
  - ▶ **Recruitment**
    - ▶ Build visibility, generate buzz
  - ▶ **Maintenance**
    - ▶ Build connections, generate dialogue
  - ▶ **Retention**
    - ▶ Build consensus, generate support



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# Spectrum of Sophistication

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“Science-attentive” public

Scientific  
“communities of interest”

Scientific peers



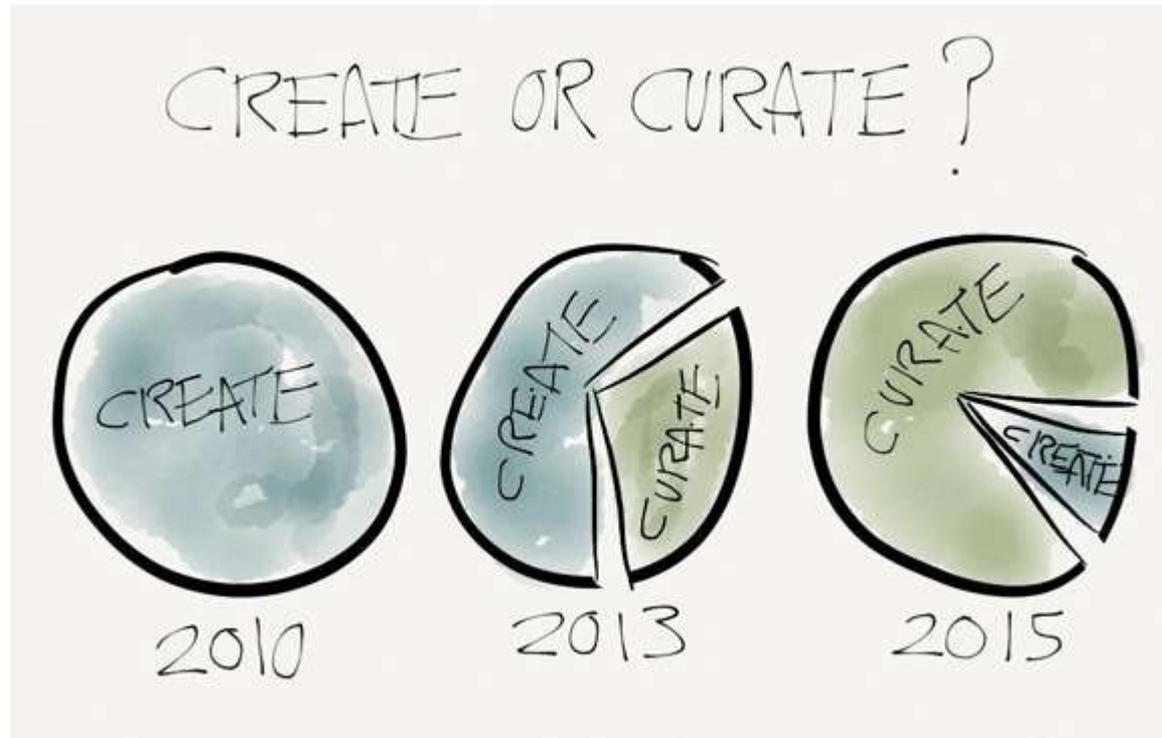






# Curation, not creation

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Uncle Sam  
**WANTS**  
**YOU**



# Amplification from the SC web site

The screenshot shows the homepage of the U.S. Department of Energy Office of Science. At the top, there is a navigation bar with links for "SC Home", "Organization", "Jobs", and "Contact". Below this is the "U.S. DEPARTMENT OF ENERGY Office of Science" logo and a search bar. A secondary navigation bar includes "Programs", "Laboratories", "User Facilities", "Universities", "Funding Opportunities", "Discovery & Innovation", "News", and "About".

The main content area features a large article titled "Long-Sought Discovery Fills in Missing Details of Cell 'Switchboard'". The text states: "SLAC's x-ray laser lends new insight into key target for drug development." Below the text is a "Read More" button and a "LEFT" navigation arrow. To the right of the text is a 3D molecular model showing a complex structure of atoms and molecules in various colors (orange, blue, yellow, grey).

Below the main article are two columns of smaller articles:

- Featured Articles:**
  - It All Comes to Light:** New advances, including light sources, allow for non-destructive techniques for examining old artifacts. [Read More](#)
  - X-Rays and Electrons Join Forces To Map Catalytic Reactions in Real-Time:** New technique combines electron microscopy and synchrotron x-rays at Brookhaven Lab to track chemical reactions under real operating conditions. [Read More](#)
  - Summer in the Arctic:** Researchers supported by the Office of Science are doing "cool" new research this summer. [Read More](#)
- Science Headlines:**
  - Simulations Lead to Design of Near-Frictionless Material:** 07.22.15 Argonne scientists used Mica to identify and improve a new mechanism for eliminating friction, which led into the development of a hybrid material that exhibited superlubricity at the macroscale for the first time. [Read More](#)
  - Cleaning Up Bunker Oil with White Rot Fungi:** 07.22.15 Researchers at the DOE Joint Genome Institute evaluate how fungi better known for breaking down plant biomass do it in a bioremediation application. [Read More](#)
  - New Technique to Synthesize**

# Amplification with EurekAlert!

The screenshot shows the homepage of the U.S. Department of Energy Science News website. At the top, the "EurekAlert!" logo is prominently displayed. Below it, the website header includes the U.S. Department of Energy logo and the text "Office of Science". A search bar with a "GO!" button is located in the top right corner. The main navigation bar lists various scientific fields: Biological Sciences, Computational Sciences, Energy Sciences, Environmental Sciences, Physical Sciences, Engineering and Technology, and National Security Science.

On the left side, there is a sidebar with links for "Labs", "Multimedia Resources", "News Releases", "Feature Stories", "Library", "Contacts", and "RSS Feed". Below this sidebar is the "National Science Bowl" logo and a "Return to" button with the EurekAlert! and AAAS logos.

The central content area is titled "News from the National Laboratories" and lists several news items with their dates and brief descriptions:

- 21-Jul-2015**: Simulations lead to design of near-frictionless material. DOE/Argonne National Laboratory
- 16-Jul-2015**: A most singular nano-imaging technique. DOE/Lawrence Berkeley National Laboratory
- 16-Jul-2015**: Story tips from the Department of Energy's Oak Ridge National Laboratory, July 2015. DOE/Oak Ridge National Laboratory
- 16-Jul-2015**: New pilot helps small businesses tap ORNL expertise. DOE/Oak Ridge National Laboratory
- 15-Jul-2015**: Closer look at microorganism provides insight on carbon cycling. DOE/Argonne National Laboratory

Below this list is a link for "ALL DEPARTMENT OF ENERGY NEWS >>".

The bottom section is titled "News from Universities and Other Research Partners" and lists more news items:

- 22-Jul-2015**: Smarter window materials can control light and energy. University of Texas at Austin
- 20-Jul-2015**: NIST calculates high cost of hydrogen pipelines, shows how to reduce it. National Institute of Standards and Technology (NIST)
- 20-Jul-2015**: Study: Property of non-stick pans improves solar cell efficiency. University of Nebraska-Lincoln
- 17-Jul-2015**: [Title partially obscured]

On the right side, there is a "FEATURES" section with three featured articles, each with a small image and a "Full Story >>" link:

- Whole lotta shakin' goin' on**
- Tracing the evolution of a drug-resistant pathogen**
- New design could dramatically boost efficiency of low-cost solar panels**
- It all comes to light**

# Amplification with Newswise

The image shows a screenshot of the Newswise website's DOE Science News Source page. The page has a blue header with the 'newswise' logo and a search bar. Below the header is a navigation menu with links for Home, Sections, Channels, Wires, Experts, Newsrooms, Resources, About, and Blogs. The main content area features a large banner for 'DOE SCIENCE NEWS SOURCE' with a 'SUBSCRIBE' button. A 'WELCOME' message is followed by a sub-header: 'The DOE Science News Source is a Newswise initiative to promote research news from the Office of Science of the DOE to the public and news media.' The main article is titled 'AUTONOMOUS TAXIS WOULD DELIVER // BREAKING SIGNIFICANT ENVIRONMENTAL AND ECONOMIC BENEFITS' and features a photo of two men in lab coats standing next to a blue car. To the right, there is a 'FOLLOW US' section with social media icons for Facebook, Twitter, and RSS. Below that is a 'RELATED TOPICS' sidebar with a list of categories: HIGH ENERGY PHYSICS, NUCLEAR PHYSICS, FUSION, SUPERCOMPUTING, BASIC ENERGY SCIENCES, BIOLOGY & ENVIRONMENT, PARTICIPATING LABS, DOE OFFICE OF SCIENCE, ARGONNE NATIONAL LABORATORY, and OAK RIDGE NATIONAL. At the bottom of the page, there are three smaller images: a molecular structure diagram, a 3D visualization of a particle or structure, and a view of Earth from space.

# A DUMMIES GUIDE TO...

Science of Science Communication

30 years of communications research

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## REPEAT AFTER ME:

There is no such thing as the general public.  
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**Steel Shot - size 4**





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