



Communicating the Future:
Engaging Science, Engaging Scientists



Rick Borchelt, Office of Science, DOE – July 2015







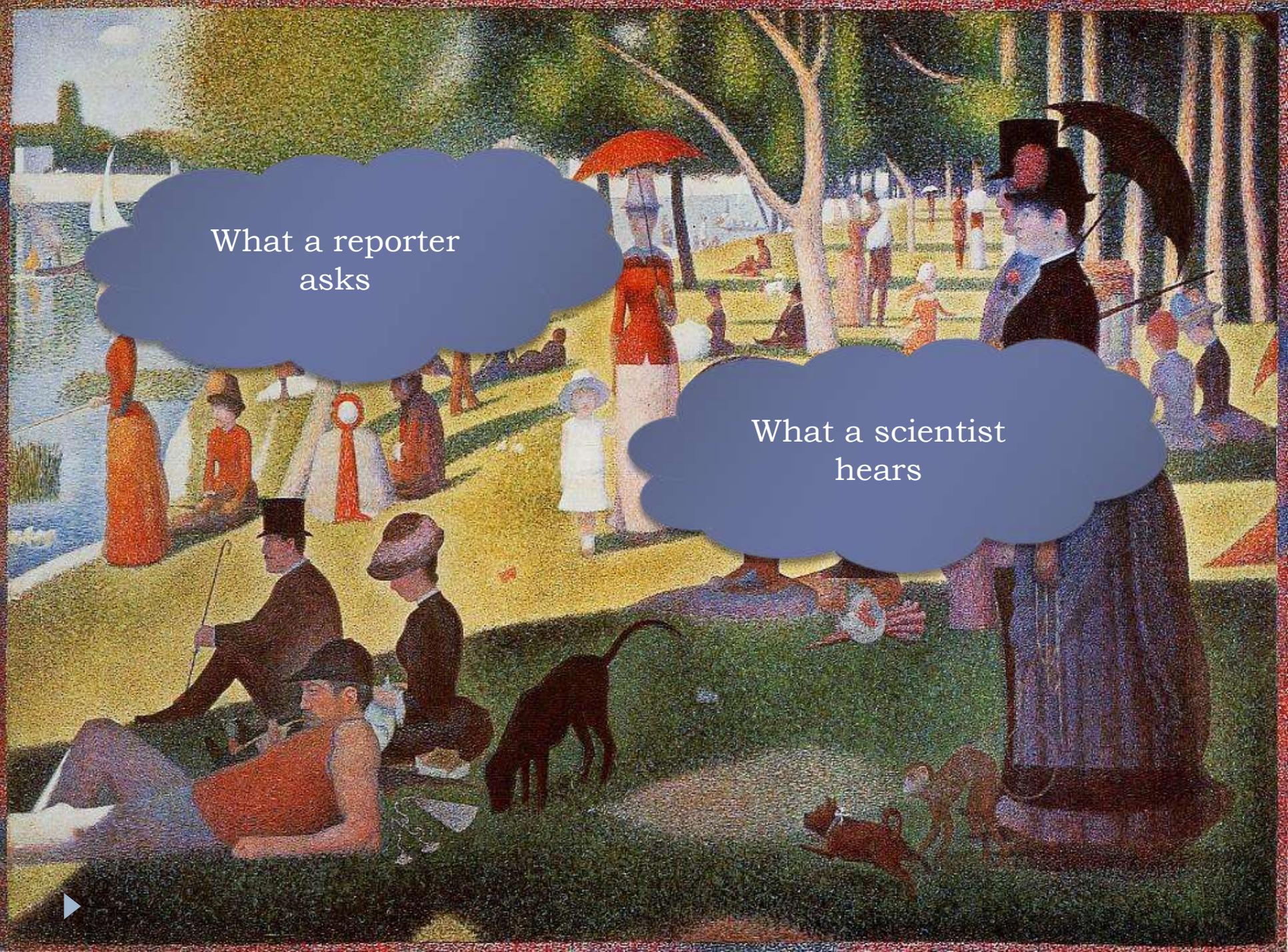




Everything I learned about science
communication I learned in entomology
grad school.

Not.





What a reporter
asks

What a scientist
hears

Elements of the SC Communications Strategy

- ▶ 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







Lifecycle Communications Planning -- 1

- ▶ 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

- ▶ 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



“Science-attentive” public

Scientific
“communities of interest”

Scientific peers

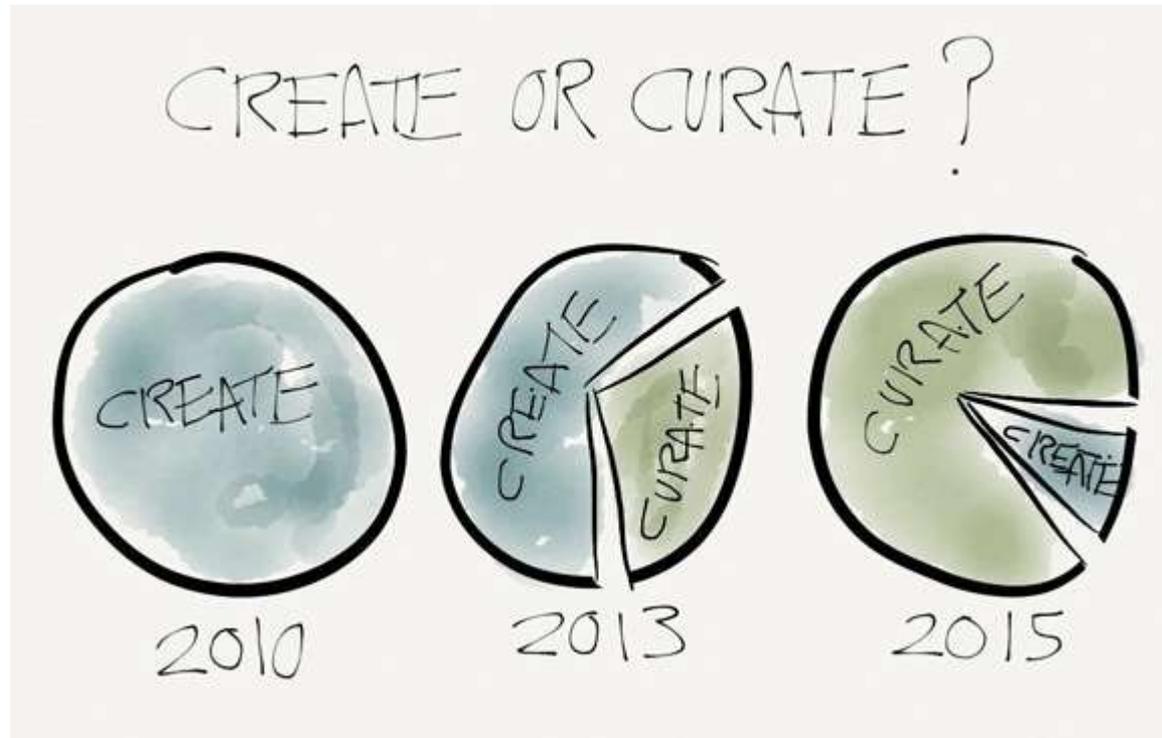








Curation, not creation





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 with orange and red spheres and yellow ribbons.

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 EurekaAlert

The screenshot displays the EurekaAlert! website interface. At the top, the EurekaAlert! logo is visible. Below it, the U.S. Department of Energy logo and the text "SCIENCE NEWS" are prominent, along with the tagline "Basic Research for the Nation's Future". A navigation menu includes categories like Biological Sciences, Computational Sciences, Energy Sciences, Environmental Sciences, Physical Sciences, Engineering and Technology, and National Security Science. On the left, there are links for Labs, Multimedia Resources, News Releases, Feature Stories, Library, Contacts, and RSS Feed. The main content area is divided into two sections: "News from the National Laboratories" and "News from Universities and Other Research Partners". Each section lists recent news items with dates, titles, and brief descriptions, followed by a "Full Story >>" link. On the right, a "FEATURES" sidebar highlights specific articles with images and titles, such as "Whole lotta shakin' goin' on" and "Tracing the evolution of a drug-resistant pathogen". At the bottom left, there are logos for "Return to: EurekaAlert!" and "AAAS".

EurekaAlert!

U.S. Department of Energy
SCIENCE NEWS
Basic Research for the Nation's Future

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News from the National Laboratories

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

ALL DEPARTMENT OF ENERGY NEWS >>

News from Universities and Other Research Partners

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

FEATURES

Whole lotta shakin' goin' on
Full Story >>

Tracing the evolution of a drug-resistant pathogen
Full Story >>

New design could dramatically boost efficiency of low-cost solar panels
Full Story >>

It all comes to light
Full Story >>

Return to:
EurekaAlert!
AAAS

NATIONAL SCIENCE BOWLSM
A COMMITMENT TO EXCELLENCE

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' section 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 small images: a molecular structure diagram, a 3D visualization of a particle detector or simulation, and a view of Earth from space.

newswise

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NUCLEAR PHYSICS

FUSION

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BASIC ENERGY SCIENCES

BIOLOGY & ENVIRONMENT

PARTICIPATING LABS

DOE OFFICE OF SCIENCE

ARGONNE NATIONAL LABORATORY

OAK RIDGE NATIONAL

WELCOME // 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.

AUTONOMOUS TAXIS WOULD DELIVER
// BREAKING SIGNIFICANT ENVIRONMENTAL AND ECONOMIC BENEFITS

Image of two men in lab coats standing next to a blue car.

Image of a molecular structure diagram.

Image of a 3D visualization of a particle detector or simulation.

Image of Earth from space.

A DUMMIES GUIDE TO...

Science of Science Communication

30 years of communications research

REPEAT AFTER ME:

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





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[@rickborchelt](#)