



Science Communication Resources

An evolving list, compiled by Metcalf Institute
www.metcalfinstitute.org
@MetcalfURI

C-DEBI Communication Resources

Videos about C-DEBI research

<http://www.darkenergybiosphere.org/outputs-resources/videos/>

15 Second Science – (very) short videos about C-DEBI science

<https://www.youtube.com/playlist?list=PLoPslT-m1sgQ1vz4Jga9Ix04YJKtGoAt3>

Metcalf Institute Science Backgrounders about C-DEBI research themes, all created in 2012:

- Activity in the Deep Subsea Biosphere <http://metcalfinstitute.org/c-debi-activity/>
- Extent of Life <http://metcalfinstitute.org/c-debi-extent/>
- Limits of Life <http://metcalfinstitute.org/c-debi-limits/>
- Evolution and Survival <http://metcalfinstitute.org/c-debi-evolution/>
- C-DEBI Expert List <http://metcalfinstitute.org/c-debi/>

Engaging General Audiences

Baron, N. (2010). *Escape from the Ivory Tower: A Guide to Making your Science Matter*. Island Press.

Cicerone, R., et al. 2014. Science of Science Communication II: Summary of a Colloquium. Proceedings of Arthur M. Sackler Colloquium of the National Academy of Sciences, “The Science of Science Communication II,” held September 23-25, 2013, at the National Academy of Sciences building on Constitution Avenue in Washington, DC. 130 pp.
<http://www.nap.edu/read/18478/chapter/1>

Dean, C. (2009). *Am I Making Myself Clear? A Scientist’s Guide to Talking to the Public*. Harvard University Press. (Advice on how to carry out open and direct dialogue among scientists, journalists, and the public.)

Huertas, A. *Science Communication Media*. <http://sciencecommunicationmedia.com/>
(This is a great one-stop shop with video tutorials on a variety of scicomm topics and techniques, from developing effective messages to building trust with audiences)

Leslie, H.M., et al. 2013. How good science and stories can go hand-in-hand. *Conservation Biology* 27: 1126-1129. <http://onlinelibrary.wiley.com/doi/10.1111/cobi.12080/full> (Advice on communicating complex concepts)



Meredith, D. (2010). *Explaining Research: How to Reach Key Audiences to Advance Your Work*. Oxford University Press.

Myhre, S. and T.M. Hill. (2016). Weighing the costs: communicating personally and professionally as a climate scientist. *Medium*. <https://medium.com/@SarahEMoffitt/weighing-the-costs-communicating-personally-and-professionally-as-a-climate-scientist-cf7d3db67926#.s2a4zvl2>

Nisbet, M.C. 2010. Communicating climate change: Why frames matter for public engagement. *Environment: Science and Policy Development* 51:12-23.
<http://www.environmentmagazine.org/Archives/Back%20Issues/March-April%202009/Nisbet-full.html>

Nisbet, M.C. and Dietram A. Scheufele (2009). What's next for science communication? Promising directions and lingering distractions. *American Journal of Botany* 96(10): 1767-1778.
<http://bit.ly/1pS1B5n>

Olson, R. (2009). *Don't be Such a Scientist: Talking Substance in an Age of Style*. Island Press.

Olson, R. (2009). Top Five Tips for Communicating Science. *New Scientist*, 10:51 01 October 2009. <http://www.newscientist.com/article/dn17893-top-five-tips-for-communicating-science.html?page=1>

Doumont, J-L. Scitable. A collaborative learning space for science, produced by NatureEducation.
<http://www.nature.com/scitable/topic/scientific-communication-14121566>

Somerville, R.C.J. and S.J. Hassol (2011). Communicating the science of climate change. *Physics Today*. October 2011: 48.
http://www.physicstoday.org/resource/1/phtoad/v64/i10/p48_s1?bypassSSO=1

Union of Concerned Scientists (2016) Facing the Bullies: Stories and strategies for combatting scientist harassment. <https://www.youtube.com/watch?v=IEEgFX35Gww&feature=youtu.be>

Ward, B. (2008). *Communicating on Climate Change: An Essential Resource for Journalists, Scientists, and Educators*. Metcalf Institute for Marine & Environmental Reporting. 74 pp.
<http://metcalfinstitute.org/resources/communicating-on-climate-change/>

Zinsser, W. (2006). *On Writing Well: The Classic Guide to Writing Nonfiction*. New York: HarperCollins. (30th anniversary edition)

Tips for Interacting with Journalists

AAAS Communicating Science: Tools for Scientists and Engineers
<http://communicatingscience.aaas.org/Pages/newmain.aspx>

Tips for media interviews

<http://communicatingscience.aaas.org/WorkingWithReporters/Pages/MediaInterviews.aspx>

What to Ask Reporters



<http://communicatingscience.aaas.org/WorkingWithReporters/Pages/WhattoAskReporters.aspx>

Hayes, R. and D. Grossman (2006). *A Scientist's Guide to Talking With the Media: Practical Advice from the Union of Concerned Scientists*. Rutgers University Press.

Keeney, D. (2006). Top 10 Tips for Preparing for a TV Interview. DPK Public Relations. June 28th, 2006. (Very logistical in nature.) <http://www.dpkpr.com/articles/top-10-tips-for-preparing-for-a-tv-interview/>

Miner, M. (2012). What Makes a Great Radio Interview? COMPASSBLOGS. 9 October, 2012. <http://bit.ly/1qkiRj9>

Poulson, D. Bagging a Productive Interview, a Tipsheet. Knight Center for Environmental Journalism, Michigan State University. <http://www.ej.msu.edu/interviewing.php>
(This is a nice resource from the MSU Knight Center for Environmental Journalism on outlining tips for how journalists should approach an interview and could be useful for scientists to understand this perspective.)

Social Media Resources

Bik, H. and M. Goldstein. 2013. An introduction to social media for scientists. PLOS Biology <http://www.plosbiology.org/article/info%3Adoi%2F10.1371%2Fjournal.pbio.1001535>

Darling, E.S., Shiffman, D., Cote, I.M., Drew, J.A. 2014. The role of Twitter in the life cycle of a scientific publication. (Open PeerJ Preprint: <https://peerj.com/preprints/16/>) Katie Pratt's infographic based on this paper: <http://www.katiephd.com/twitter-and-science-publications/>

Ekins, S. and E.O. Perlstein. 2014. Ten Simple Rules of Live Tweeting at Scientific Conferences. *PLoS Comput Biol* 10(8): e1003789. <http://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1003789>

Giovanna Guerrero-Medina et al. 2013. Supporting diversity in science through social networking. PLOS Biology. <http://www.plosbiology.org/article/info:doi%2F10.1371%2Fjournal.pbio.1001740>

Goldstein, M. 7 June 2012. Reaching Out: So you want to communicate science online: The Flowchart. Nature Soapbox Science Blog. (Flowchart narrows down what social media to use depending on your goal.) <http://bit.ly/ZcCRNF>

Loker, K. 2010. Five Twitter tips for using conference hashtags like #ONA10. Mediabistro.com (Useful tips on how to tweet and monitor an event, such as a conference.) <http://bit.ly/1tCzHM5>

Lunt, I. 16 December 2015. Live tweeting at academic conferences: time to move on? Guest post on smallpondscience.com. <https://smallpondscience.com/2015/12/16/live-tweeting-at-academic-conferences-time-to-move-on/>

Tachibana, C. 28 February 2014. A scientist's guide to social media. *Science*. DOI: 10.1126/science.opms.r1400141.



<http://www.sciencemag.org/careers/features/2014/02/scientists-guide-social-media>

Thaler, A.D. 30 June 2012. A field guide to ocean science and conservation on Twitter. Southernfriedscience.com. (Twitter Advice from a marine scientist who started blogging as a grad student, including links to some of his favorite resources about tweeting.)

<http://www.southernfriedscience.com/?p=13377>

Van Noorden, R. 13 August 2014. Online Collaboration: Scientists and the social network. *Nature*, 512(7513): 126-129. <http://bit.ly/Vj2JpO>

Video Resources

Excellent summary regarding camera basics, gear, composition, and lighting developed by the Ocean Media Institute for a Metcalf Institute workshop. <http://oceanmediainstitute.org/metcalf>

The Scientist Videographer. This blog features a detailed series of tutorials on using iMovie, Photoshop, GoPros, and more. <http://thescientistvideographer.com/wordpress/tutorials/>

Writing Resources

Berkeley Science Review. Resources for Science Writing. Resources for aspiring science writers. <http://berkeleysciencereview.com/join/resources-for-science-writing/>

Clayton, V. 26 October 2015. The needless complexity of academic writing. The Atlantic. http://www.theatlantic.com/education/archive/2015/10/complex-academic-writing/412255/?utm_source=SFFB

Duke University Graduate School. Scientific Writing Resource. This free online course offers instruction in how to write effectively. <https://cgi.duke.edu/web/sciwriting/>

The Op-Ed Project. Training for under-represented experts “to take thought leadership positions in their fields.” <http://www.theopedproject.org>

The Wellcome Trust offers a variety of great science writing tips here. <http://blog.wellcome.ac.uk/tag/how-to/>

Zimmer, Carl. “A Note to beginning science writers.” [CarlZimmer.com](http://carlzimmer.com/writers.html). 2013. <http://carlzimmer.com/writers.html>

Science Blogging Resources

Janiszewski, P. 6 Dec. 2010. 8 Tips on Starting A Science Blog. Science of Blogging.com <http://scienceofblogging.com/8-tips-on-starting-a-science-blog/>

Neeley, L. 2014. Making peace with self-promotion, COMPASSBlogs. <http://compassblogs.org/blog/2014/05/30/making-peace-with-self-promotion/>



The Imperial College London has a workshop about science blogging as part of their Graduate School's Transferable Skills Training Program. This page includes some of the workshop presentations covering why grad students should blog, along with opportunities and issues in science blogging.

<http://sciencebloggingworkshop.wordpress.com/about-the-workshop/>

Communication Tools

Connection Storymaker (an app developed by Randy Olson to help write and organize stories)

<https://itunes.apple.com/us/app/connection-storymaker/id697184730?mt=8>

Hemingway (a handy app that analyzes your writing for clarity, brevity, jargon, and grammar)

<http://www.hemingwayapp.com/>

UpGoer Five Text Editor. This is a fun way to practice using simple, clear language.

<http://splasho.com/upgoer5/>

For more insights on science communication, writing, and using social media effectively, monitor these hashtags on Twitter:

#MySciBlog #MyWritingProcess #scicomm #netlit (= “network literacy,” anything that aids participation in online networks, communities, activities)