

Civic science storytelling & film: research-practice partnerships advancing filmmaking and the science of science communication

*By Emily Howell, Civic Science Postdoctoral Fellow and Resource Partner,
for the Civic Science Fellows Learning Lab – June 8, 2021*

On June 8th, 2021, in the Civic Science Fellows Learning Lab: *New Models for Science Storytelling: Developing Civic Science Research-Practice Partnerships*, we'll hear about the origins, successes, and challenges of collaborations advancing research and practice to engage diverse audiences in civic science stories through film. Film producers [Elliot Kirschner and Mónica Feliú-Mójer](#), from the production company the Wonder Collaborative, and science communication researcher and CSF resource partner [Dietram Scheufele](#), from the University of Wisconsin-Madison, will share highlights and opportunities from their collaboration building research into film production. They are investigating how to create documentaries that engage audiences underserved and underrepresented by science and science communication. The collaborations, in turn, have helped enrich and inform the conversations, learning, and work of the Civic Science Fellows program and introduced new partners into the program.

Civic Science & Building Research-Practice Partnerships

Civic science strives to enable deep, democratic engagement with science in society by diverse populations, fostering a collective dialogue on how science can inform solutions to some of our most pressing problems. It seeks to create of culture in which people from many walks of life can use, shape, and contribute to scientific knowledge and inquiry, generating an inclusive environment for public problem-solving, benefit, and discovery. The Civic Science Fellows program works to advance civic science by developing and supporting connections, communication, and learning across diverse viewpoints and areas of expertise in science and broader society on the big societal challenges we face. We focus on generating and connecting research to evidence-based practice, build interdisciplinary and cross-sector connections, and advance diversity, inclusivity, and equity in science and broader society.

To advance this work, the Fellowship was designed to bring together researchers and practitioners – in part motivated by the National Academies of Sciences, Engineering, and Medicine (NASEM) 2017 report on [Communicating Science Effectively: A Research Agenda](#). The NASEM report highlighted the need for more of these partnerships to advance both research and practice in science communication. The Civic Science Fellows program brings together researchers and practitioners across fields and sectors and support their collaborations

with a network of Resource Partners and a diverse roster of experts in the wider civic science community.

This month we've seen and learned from the remarkable research-practice partnerships emerging across the Civic Science Fellows network. Most recently, on June 2nd, we saw part two of the NASEM's roundtable discussion *Collaborating with Communities around COVID-19, Climate, and Community Concerns*. The roundtable brought together researchers and community leaders from successful research-partnership collaborations across the U.S. and itself was the product of an emerging partnership between the NASEM and Medicine's Standing Committee on Advancing Science Communication and the Civic Science Fellows program. Seven Fellows are helping develop that collaboration and led the roundtable discussions, including our moderators for the June 8th *New Models for Science Storytelling* Learning Lab, [Adnaan Wasey](#) and [Clio Heslop](#).

Both Adnaan and Clio are working to better connect research to practice in their civic science projects. Clio, hosted by the US-UK Fulbright Commission and the Center for Media Engagement at the University of Texas at Austin, is working to build connections between professionals in business, research, policy, media, and non-profit sectors to work together on diverse and inclusive science engagement. Adnaan, hosted by WGBH, is integrating research into fiction entertainment shows to test how such shows can help less science-engaged audiences more readily access and use science information that is relevant to them. In these and all of the projects that Fellows and partners are conducting in the Civic Science Fellows program, we're seeing the power and possibility of combining intentional research and practice to find new ways to meaningfully engage diverse audiences.

Why Civic Science Storytelling through Film?

Stories are a promising tool for advancing civic science goals. They can be an incredibly powerful way of [conveying scientific information](#) so that it reaches audiences in a way [that is relevant and memorable to them](#). They offer the potential to engage diverse audiences in issues that have big scientific and societal implications and questions.

Film in particular is a powerful but understudied and underutilized format for telling civic science stories, both in fiction and non-fiction. Film is [one of the most popular and trusted mediums](#) for science information for Americans. In a 2017 Pew survey, [45 percent of Americans](#) said that they regularly got science news from documentaries or other science video programs – second only to general news outlets. Americans reporting trusting science films much more than general news outlets to get the facts right. Fifty-two percent of Americans believed they get their facts right, second only to science centers and museums (54 percent) as most trusted, and much higher than for general news outlets (28 percent). Expanding beyond non-fiction, [81 percent of Americans regularly watch fictional science TV shows and movies](#). Most viewers

believe that such shows tend to give a positive or neutral impression of science and technology and those working in science fields.

Very little research exists, however, testing the impact of telling science stories through film, and traditional science documentaries and programming reaching primarily those already engaged in science issues. Unless carefully designed and tested, science stories can have unintended consequences or be likely to reach only those already are interested and engaged with the topic covered in the story. A [growing body of work](#) examines how stories help people process information and feel connected to an issue or characters, and is investigating stories as a form for science communication. But there is still much collaboration and experimentation needed to advance this work for both research and science communication practitioners.

Additional resources

Films from the Wonder Collaborative

Wonder Collaborative, [Short films that experiment with science storytelling](#).

Wonder Collaborative, [Background to Breakthrough](#) – a collection of short films showcasing how scientists of color have succeeded because of their backgrounds.

Kirscher, E., Boustead, G., Rather, D., DeSalazar, M., & Goodwin, S.(Producers), & Bolt, A. (Director)(2019) [Human Nature](#). Also available through [Netflix](#).

Shattuck, S., Cheney, I. (Directors/Producers), & Pottle, Manette (Producer). (2020). [Picture a Scientist](#).

Advancing the science of science communication

Feliú-Mójer, M. I. (2020). [Gene editing communication must center marginalized communities](#). *Environmental Communication*, 14(7): 877-880.

Standing Committee on Advancing Science Communication. [Our work](#). National Academies of Sciences Engineering, and Medicine.

The National Academies of Sciences Engineering and Medicine. (2017). [Communicating science effectively: A research agenda](#).

The science of storytelling & engaging

Green, M. C., Strange, J. J., & Brock, T. C. (Eds.). (2002). *Narrative impact: social and cognitive foundations*. Mahwah, NJ: Lawrence Erlbaum Associates.

Dahlstrom, M. F. (2014). [Using narratives and storytelling to communicate science with nonexpert audiences](#). *Proceedings of the National Academies of Science*, 111: 13614-13620.

Boyd, B. (2009). *On the origin of stories: evolution, cognition, and fiction*. Cambridge, MA: The Belknap Press of Harvard University Press.

Hsu, J. (2008). [The secrets of storytelling: why we love a good yarn](#). *Scientific American Mind*, 19(4).