Storytelling for Researchers

"Stories are just data with a soul."
—Dr. Brené Brown

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One of the most important factors that prevents people from using evidence in organizational decision-making is that evidence is not perceived as relevant or important to their work (Fabian et al., 2019). It is important, therefore, that those who focus on generating and synthesizing evidence establish mechanisms that encourage direct engagement with target users of evidence. This briefing identifies factors that researchers should consider in developing narrative stories about research. At the end of the briefing are a variety of resources, tools, and techniques that can help in this process.

Why stories are important

It is well known that much valuable research does not get used. Analysis by the World Bank found that between 2008 and 2012, "nearly one-third of the World Bank's reports had never been downloaded, not even once. Another 40 percent of their reports had been downloaded fewer than 100 times. Only 13 percent had seen more than 250 downloads in their lifetimes" (Doemeland and Trevino, 2014). The picture is slightly better in the scientific literature, but "of 39 million research papers across all disciplines recorded in the Web of Science from 1900 to the end of 2015 — some 21% haven't yet been cited" (Van Noorden 2017).

There are lots of important ways to address the problem of research uptake; one way is through storytelling. Recent discoveries in neuroscience have shown that storytelling techniques impact the brain of both the storyteller and the listener (Zac 2015), allowing the audience to become emotionally receptive to facts and increasing the chance that they will remember and act on that information. New research suggests that no matter how a narrative is expressed — through words, gestures, or drawings — our brains relate best to the characters, focusing on the thoughts and feelings of the protagonist of each story (Yuan et al., 2018).

Good storytelling can help influence people to make different decisions by describing a future state in a way that touches people emotionally. For example, Dahlstrom (2014) explains that narratives offer "increased comprehension, interest, and engagement" that are also "intrinsically persuasive, which offers science communicators tactics for persuading otherwise resistant audiences." This extends to scientific writing. A study of 732 scientific abstracts drawn from the climate change literature found that articles with more narrative abstracts were cited more often and that higher-impact journals also tended to feature more narrative articles (Hiller et al., 2016).

Of course, scientists must be careful when using stories to influence decision-making. In an article provocatively titled "Against storytelling of scientific results", Yarden (2013) argues that defining features of narrative – someone pursuing a goal, a satisfying resolution that resolves , a meaning that draws people in – can be antithetical to key ideals and practices of scientific work. Therefore, the task of the researcher is to find the right story and to tell it in a way that gives the facts meaning.

Crafting a story

For scientists, the challenge is to develop a precise story that faithfully presents the research results, while also relating them to the contextual narratives of the decision maker. So how can research be translated into narratives?

In an article published in Nature, Krzywinski and Cairo (2013) briefly outlined the familiar elements that underpin most stories: introduction, question, conflict, buildup, and resolution. They argue that these elements should be applied both to the way science is narrated and also to data graphics. Their advice is to "use the idea of a story arc and make your presentation episodic—unfold it, don't dump it". And "In each part, make not only its content clear but its purpose easily discernible".

There are a variety of storytelling structures and frameworks that can help researchers to organize their data and ideas. For example, Booker's (2004) book on the seven basic plots outlines the structure of seven types of story and how these have been used across literature, film, and folklore. For example, "Overcoming the Monster" can be used to tell stories of producing research against all the odds, while "Tragedy" storylines can be used to demonstrate a problem in society or how not to do something. In a monomyth (also called voyage and return, or hero's journey), the hero is called to leave his or her home and sets out on a difficult journey, returning with newfound wisdom to share (Booker 2004). Using the monomyth to shape a research presentation can help bring alive the research process for a decision maker.

The final step is to develop the story from the skeleton narrative. Aristotle put forth the idea that a play (or story) should have "a beginning and middle and end." The beginning of the story should set the scene, situating the listener in a specific time and place. The middle contains the details of the plot, encouraging the listener to develop empathy for the situation of the main character. The end returns to the purpose of the story.
In an excellent book on storytelling, Buster (2017) provides ten principles for developing a clear and compelling narrative. Select principles include Principle 1: "Tell your story as if you're telling it to a friend", Principle 2: "Set the GPS" so that people understand the context, Principle 4: "Juxtapose" different ideas, images, or thoughts and place them together and, Principle 5: Choose an ordinary moment or object that becomes a "gleaming detail." These techniques can help turn a dry description of research findings into something that the reader can relate to and remember.

Questions to ask yourself

1. **Who is the audience for the story?** Micro-targeting is the idea that any piece of evidence may only be directly applicable to a handful of people. Being clear on where research can have the greatest uptake will provide understanding of who these individuals are and where to find them.

2. **What is the purpose of the story?** Clarify the 'big idea' that you want to share with the audience as succinctly as possible. This is the underlying purpose of the story.

3. **What are the barriers to action?** Understanding the barriers to action will help you to aptly translate and communicate research findings in a usable manner. This could be through undertaking training courses to learn skills required of the decision maker or building closer relationships with relevant individuals.

4. **Does the story provoke empathy?** Put yourself in the practitioner's shoes: what about the story is most appealing? What motivating story would have most resonance?

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Tools and resources

The tools and resources below can help identify an audience, develop the idea for a story, and craft a narrative. While there has been increasing interest in the role of science storytelling, very few specific tools or resources exist. Here we list some relevant techniques and guidance developed for other sectors that provide a valuable starting point.

Table 1. Storytelling techniques

Tools

1	**The POEMS method**	POEMS stands for People, Objects, Environments, Messages, and Services. This technique fosters thinking about one or two specific decision-makers to influence, and to collect data on how they work, and the decisions they are making. This gives perspective of the decision makers and understand what is important to them. This tool takes 1-2 hours in a workshop setting. ***Reference and additional information.*** https://spin.atomicobject.com/2017/09/20/poems-template-user-observation/
2	**Storytelling toolkit**	This simple Storytelling toolkit produced by IDEO and Amplify follows a short step-by-step process to craft a story. ***Reference and additional information.*** https://media-openideo-rwd.oiengine.com/attachments/e48413d4-f773-4b0a-a4cc-c139b1ede4bc.pdf
3	**Successful Communication: A Toolkit for Researchers and Civil Society Organizations**	Although not only about storytelling, this toolkit provides some useful advice, tips, and tricks for researchers looking to communicate findings. There is also an accompanying communications monitoring, evaluation, and learning toolkit that helps assess the uptake of research. ***Reference and additional information.*** https://www.odi.org/publications/155-successful-communication-toolkit-researchers-and-civil-society-organisations

Table 2. Storytelling resources and guidance

Resources

1	**The Story Collider**	The Story Collider hosts live events, a podcast, and workshops all designed to help engage people with science through stories. ***Reference and additional information.*** https://www.storycollider.org/
2	**Stories for Work: The Essential Guide to Business Storytelling**	Dolan's book outlines four storytelling structures that are particularly suited to organizational contexts. The book includes a variety of techniques and activities, such as the storytelling wheel which helps mine experiences for stories. Dolan, G. (2017). *Stories for work: The essential guide to business storytelling.* John Wiley & Sons.
3	**Nancy Duarte TED Talk on the Structure of Stories**	TED Talks themselves are great inspiration for presenting in general, and there are several talks dedicated to storytelling. One example comes from Nancy Duarte on The Secret Structure of Great Talks. She employs the "what it is, what it could be" story structure, a good starting point for thinking about how to communicate research. ***Reference and additional information.*** https://www.ted.com/topics/storytelling
4	**Enago Academy**	This website includes blogs on using story narratives to write research papers and blogs ***Reference and additional information.*** https://www.enago.com/academy/storytelling-in-science-communicating-your-research-effectively/ https://www.enago.com/academy/scientific-research-blogging-tips-for-researchers/?utm_

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5	**Get to the Heart – How Movie Storytelling Secrets Can Make Your Presentation Clear, Compelling, and Earn You a Seat at the Table**	This book by Ted Frank covers storytelling within the market research industry. He offers tips to guide you through building a story-driven insights report. The Industry Week website provides a helpful review. *Reference and additional information.* http://www.industryweek.com/leadership/simple-real-and-powerful-how-you-can-improve-your-presentations
6	**Storytelling for Influence Course**	This online course from IDEO is designed to help individuals, businesses, and organizations increase their impact through storytelling. *Reference and additional information.* https://www.ideou.com/blogs/inspiration/5-tips-that-will-make-you-a-better-storyteller
7	**The Power of Storytelling**	The Power of Storytelling is a conference built on the idea that well-crafted stories connect people, heal wounds, inspire, lead, and create change. *Reference and additional information.* https://www.thepowerofstorytelling.org/
8	**Compass Message Box**	This resource from consultancy Compass provides a comprehensive walk-through of its communication tool. The organization provides practical support for scientists to engage without compromising the accuracy of their science. *Reference and additional information.* https://www.compassscicomm.org/the-message-box-workbook

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