How I Went From Opening My Science To Unboxing It Completely

Amber Thomas[1]

[1]Affiliation not available

April 17, 2023

the WINNOWER

SCIENCE AND SOCIETY

How I Went From Opening My Science To Unboxing It Completely

AMBER THOMAS

CORRESPONDENCE:
amber@unbox.science

DATE RECEIVED:
September 09, 2015

DOI:
10.15200/winn.144179.96172

ARCHIVED:
September 09, 2015

KEYWORDS:
scicomm, ARCS2015, video, UnboxScience

CITATION:
Amber Thomas, How I Went From Opening My Science To Unboxing It Completely, *The Winnower* 2:e144179.96172 , 2015 , DOI: 10.15200/winn.144179.96172

My open science story starts with many people's biggest fear: rejection. More specifically, an article submission rejected by a closed, medium-impact journal on the grounds that my Master's level research did not fit within their journal's scope. After dusting myself off from this minor, yet un-anticipated blow-back, I made my way to the internet, trying to find a more suitable home for the research I had worked so hard to complete. During this time, I noticed something that I had never paid much attention to before: some articles could be accessed directly from Google and others required that I log into my University's library to access them. At the time, the distinction seemed like nothing more than a minor inconvenience, but this small realization led me down the open science rabbit hole.

I felt as if someone had just turned on a light, showing me a world that I never knew existed but couldn't imagine why I had never thought of before. I became entranced, learning all I could about the world of open science. The more I read, the more I became convinced that this was the best, and really the only way that science should be done.

I decided that an open journal would be the perfect home for my research, specifically because my work focused on the effects of early-life rehabilitation on harbor seal pups. The study held some interest for physiologists and those who investigate marine mammal dive responses, but the study also came with a real-world application. One that could be directly applicable to the work being conducted in marine mammal rehabilitation centers around the world.

If you are unfamiliar with the world of rehabilitation centers, they are staffed by amazing, selfless people who volunteer their time at all hours of the day and night to clean seal poop, scrub floors and weigh fish for the good of the animals. The job isn't easy and it doesn't leave lots of time for perusing scientific journals looking for the latest discoveries that may impact their work. In fact, most of the volunteers aren't affiliated with a university at all. That meant that if I published my article in a closed-access journal, the people who needed the information most would be unable to get it. So I decided to publish my research in PLoS One, my data on figshare and the code used to collect and analyze the data on GitHub so that all facets of my work could be shared, repeated and re-used for free.

But even though my research was now as open as I could conceivably make it, I was still faced with one last problem: jargon. Like any scientific publication, my work was written to be clear and repeatable for other scientists, but that does not mean that it was pleasure-reading material for the average person. So, I was left with yet another conundrum: how do I make this information both easy to access and easy to understand?

I toyed with several mediums of science communication from blogging to creating an infographic or poster visual aid, but ultimately realized that verbal communication was my real bread and butter. So, I landed on video. But by the time I had decided to use video, I lived far away from my Alma Mater and couldn't get the footage that I needed. I could have recorded myself talking about my work, but I was becoming tired of seeing those "talking head" videos and knew that route wasn't for me either. So, it was back to the drawing board. Literally.

Without access to actual footage, I decided to work with a professional motion graphics artist by the name of Parker. He taught me how to develop a brief animation to explain my work in a simple but entertaining format. When the video was completed, we posted it to YouTube calling it an "Animated Abstract" and shared it with friends, family and the Internet. The link was quickly shared and I was thrilled that people liked this new form of science communication. To my surprise, the most common question I received was "How can I make one of these for my science?"

After some serious thought, Parker and I decided to team up and create a new science communication service that we've dubbed "Unbox Science". The name fit perfectly, as we planned to remove science from its pay-walled, jargon-filled "boxes" and show it to the world. We produce videos, infographics and even lesson plans focused around individual, open-access research articles with the hope that we can help scientists make their work even more open and accessible. Similarly, we are helping non-scientists by exposing them to science in a non-threatening, engaging way and inviting them to join the conversation. Both scientists and non-scientists will also be able to vote on which videos they want to see produced for free through our "Community Choice Fund".

We are currently working on tracking the true impact of these products, but in the meantime, the value can be assessed by the voices of our fans:

"I think this is an amazing, beautifully illustrated video abstract that is so informative. I'm looking forward to reading the paper!"

"Great job!! This was so clear and I want to know more now =)". (When we responded to the fan's query for more information with a link to the PLoS One manuscript, the user responded: "omg ty [Oh my goodness, thank you] so much. It's like reading the book of a neat movie I saw. Seeing the video first helped me dissect important info that I wouldn't have connected to other info in the paper. Do you plan on making more videos like this?"

Yes, we do. Open science has given me a new passion, a new career path, new goals and new ways to help the world learn. The numbers will come and show this product's worth in the future, but for now, I feel good knowing that the world of open science just got a little more open.