

MAKE YOUR OWN VIDEO: A SIMPLE GUIDE TO COMMUNICATING YOUR RESEARCH EFFECTIVELY

Did you know... that you have the potential to reach thousands of school kids with a self-made video about you and your research? A video that will be engaging and accessible to non-scientific audiences? One that you can make by yourself in just a few days, with equipment you already own?

Today, improvements in consumer quality electronics – smart phones, tablets, and laptops, and their cameras and inexpensive media software - mean that producing high quality short videos are within the reach of everyone. At the same time, there is increased pressure on scientists to satisfy “Broader Impacts” requirements on grant proposals – the need to include some kind of outreach component, and hopefully one that will have high impact. These factors are combined with the increased need for high quality science education and outreach. Scientists need to engage students and citizens, whose lives are being affected directly by real problems - whether caused by climate change or resource depletion – feeding their increasing desire to understand what is causing the changes they see around them.

Making short, engaging videos can be your answer! Even if you have never held a movie camera before, follow these simple steps and you can produce a short video that portrays you and your scientific research in a clear, engaging, inspiring format.

Here’s the bottom line: If you produce an engaging, content-rich video about your research interests that’s under three minutes long and connects to Ocean Literacy principles and/or science standards, we will get it into the hands of thousands of teachers, to potentially be seen by thousands of students across the US. **This is a low barrier, high value Broader Impact activity!**

STEP 1: DISCOVER YOUR STORY

What is your video going to be about? You are used to talking to colleagues about your research – but what about talking to school-age kids? What do they find interesting and engaging, maybe even inspiring about your work?

Answering these questions may help uncover the story for your video:

When did you know you wanted to be a scientist? What happened?

What do you like about being a scientist?

What have you learned recently?

What is one surprise you encountered in your research?

How does your research impact people's lives?

What is the question your research is trying to answer?

What is something kids would think is cool or unusual or inspiring that you encountered in your work?

What misconceptions do people often have related to your work?

Write down your answers. Try multiple answers, then mix and match. Do they start to tell a story? Ideally your video will both present you as a role model and present science that impacts the daily lives of those in your audience.

As you are thinking about which story to tell, you should also be thinking about the components you are going to use in your video – what will the images look like? What impact will your story have on your audience? What will the audio sound like? How will they work together to complement each other? These elements will also drive your choice of story.

TIPS: WHEN YOU ARE PLANNING...

- Remember who your audience is
- Remember that scientists don't always know the answer
- Include failure – it's real
- Try out your story on kids, your family, your grad students
- Collaborate with film students or the media lab on your campus, or with high school students

Hardware and Software Recommendations :

- iPad2
- iPhone4
- Flip camera (no longer manufactured)
- Kodak PlaySport (Zx3) HD Waterproof Pocket Video Camera
- Microphone: Olympus ME 52W or similar
- Editing programs and apps: iMovie App, Windows Movie Maker, Stroome, YouTube, Splice App, PowerPoint

STEP 2: INCLUDE COMPONENTS OF A SUCCESSFUL VIDEO

Media experts and teachers have identified the following components of a successful video (You do not need all of these components in your video):

- Video clips of people talking to the camera - yourself and others
- A personal story – something that will make students smile
- Video clips of research being conducted live and of scientists interacting
- Animations
- Photos of people, instruments, samples, and simple tools students might have in the classroom
- Existing footage from your research (familiar or unusual places and situations)
- Videos or images of young students engaged in learning
- Sound effects/voice over/music
- Still photos from your research work or personal life
- Photo of your lab book
- Information about exciting international work
- Do you want to invite students to email you? Include your website and/or email address

TIPS: IMAGES

Be aware of copyright issues. Unlike using images for a PowerPoint presentation, which normally will not be distributed widely, the still images that you add to your video must be free of copyright restrictions. In addition to photographs that you take yourself, we suggest you look for images on these sites:

- The Association for the Sciences of Limnology and Oceanography (ASLO) Image Bank (<http://aslo.org/education/library.html>)
- The Marine Photobank (www.marinephotobank.org/)
- Wikipedia
- NOAA and other government websites

STEP 3: MAKE A CONNECTION TO OCEAN LITERACY

Is there a place in your research that can connect to one of the 7 Ocean Literacy Principles? If you can make that connection explicit (e.g., “I study thermohaline circulation, the deep ocean currents that travel all around the globe. It’s connected to Ocean Literacy Principle #1: Earth has one big ocean with many features.”) then teachers can more easily add your video to their lesson plan.

The Ocean Literacy Principles are:

- #1: The Earth has one big ocean with many features.
- #2: The ocean and life in the ocean shape the features of Earth.
- #3: The ocean is a major influence on weather and climate.
- #4: The ocean makes the Earth habitable.
- #5: The ocean supports a great diversity of life and ecosystems.
- #6: The ocean and humans are inextricably interconnected.
- #7: The ocean is largely unexplored.

(Visit: <http://oceanliteracy.wp2.coexploration.org/> for more information about the Ocean Literacy Principles)

STEP 4: MAKE YOUR STORYBOARD

A storyboard is a visual timeline of your film – kind of like the panels of a cartoon. It’s an outline, like a PPT presentation. It will become the script for your video. Use the simple storyboard form attached to this guide, or simply draw your own. Take the stories that you have uncovered about your work and life as a research scientist, add your ideas for components, and – using a pencil – start to fill in the storyboard. Play around! Try putting the pieces in a different order.

Does your story follow the “story Arc”? Meaning, does it have

A Beginning: A Problem, question, or concern

A Middle: Action/Information to address the problem/question/concern

An End: Information about what you learned

TIPS: WHEN MAKING YOUR STORYBOARD...

- Add a strong “hook” at the beginning – something personal, emotional or funny
- Avoid text slides
- Minimize the “talking head”
- Use variety – in the lab, one on one, in the classroom, out on a cruise, with students, or at home!
- Discuss your storyboard with others
- End strong

STEP 5: CREATE YOUR VIDEO

Creating your video can be broken down into three steps: (1) prepare, (2) film, (3) compile and edit.

Prepare: Make sure you have all the necessary equipment. If you are filming others, make sure they are scheduled and have some idea about what you will be asking them to do/say.

- Camera/iPhone/iPad – charged and ready to go
- Batteries or cord for charging
- External microphone if you are using one
- Headphones to check audio quality
- Tripod or equivalent
- Duct tape (professional filmmakers always carry a roll of duct tape!)
- Water
- Mirror
- Props

Film:

Audio quality:

- Background sounds – pay attention to avoid disruptions like wind and planes or loud machinery
- The microphone needs to be placed close enough to the person speaking to maximize the quality of the recording
- Do a sound check before beginning to record

Picture quality:

- Make sure you have adequate lighting
- Be aware of the background. It should say something about who you are and what you're talking about
- Set the camera on a flat surface or tripod and try to keep unnecessary camera motion to a minimum

Rights and Permissions:

- You need signed release forms for everyone you film. (Use the one attached or ask at your Institution if they have one. Most communications offices will have one.)

TIPS: WHEN YOU ARE FILMING...

- Get as close as possible to your subject
- When you are speaking, have a script and memorize your first and last lines
- Be aware of pacing
- Explain science lingo and avoid jargon
- Try multiple takes
- Don't pause between words
- Relax
- Show, don't tell
- Make sure all cell phones are off

STEP 6: COMPILE AND EDIT

Gather all of your components into a single folder and prepare to edit. Make sure to have the title and credit information. To produce a 2-3 minute video expect to spend a day editing. And make sure to follow your storyboard like an outline.

TIPS: WHEN EDITING...

1. Watch all of your material from start to finish. Find the best takes and strongest statements for the narrative of your story.
2. Organize them in the right order and then watch them again to make sure they're all important to the story you're telling. If they're not important, take them out.
3. Once your soundtrack is the way you want it, find the visual pieces needed to enhance your story.
4. Mix and match images with the soundtrack until your video flows.
5. Watch it again with fresh eyes, or recruit someone else to watch it and give you feedback, then make any remaining edits.

STEP 7: SHARE YOUR VIDEO

Once you have completed your video.....

- Save your video in the highest quality file format available.
- Contact us when you are ready to submit your video. We are in an excellent position to efficiently disseminate your video throughout the COSEE Network, putting it in the hands of thousands of teachers nationwide.
- When you submit your video to us for distribution, you need to include a signed copy of the Agreement letter (included at the end of this guide) stating that you transfer rights to COSEE OCEAN for the use of your video.

And if you enjoyed this experience....make some more videos! Make a series! Help a colleague make a video!

Email Bob Chen at Bob.Chen@umb.edu with any questions or feedback.

TIPS: TO BE APPROPRIATE FOR USE IN SCHOOLS...

- Your finished video must be under 3 minutes
- The picture and audio quality must be clear
- Your science content must connect to at least one Ocean Literacy Principle

A storyboard panel with a light gray background. At the top, there are two white rectangular boxes. Below them is a large white rounded rectangle for an image. At the bottom, there are four horizontal lines for text.

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Video Examples

Showing a wide range of content and skill level. Watch and get inspired!

Student Stories <http://morrislab.ocean.washington.edu/?q=Student_Stories>

Student-made videos from a geologist's lab.

Shout Oral History Challenge How-to Video <<http://youtu.be/aEWmADKdrkM>>

This how-to video for students and teachers demonstrates how to plan, videotape, and edit oral history interviews.

Ari Daniel Shapiro <<http://aridanielshapiro.wordpress.com/multimedia/>>

A collection of multimedia portraits of ocean scientists.

iBioMagazine <<http://ibiomagazine.org/>>

A collection of short talks that go “behind-the-scenes” of scientific discoveries, provide advice for young scientists, and explore how research is practiced in the life sciences.

5 Second Films <<http://5secondfilms.com/>>

Just what it says – REALLY short films!

Clues to the End-Permian Extinction <<http://youtu.be/eG8XyesAu74>>

Paleoecologist Conrad Labandeira travels to the Karoo Basin of South Africa to find leaf fossils from the Permian-Triassic boundary.

Studying Lichens with Mycologist Anne Pringle <<http://vimeo.com/28938463>>

This video profiles the field research of a Harvard biologist who is creating a demography of lichens in an old cemetery in Petersham, MA.

NSF Videos http://www.nsf.gov/news/mmg/mmg_disp.cfm?med_id=71632

This profile is just one example of NSF videos about research scientists.

The Vega Science Trust <<http://www.vega.org.uk/>>

A large collection of videos by and about scientists.

Josh and Adam <<http://joshadam.com/index.html>>

Short, funny videos explaining simple science concepts.

Kahn Academy <<http://www.khanacademy.org/>>

A library of over 2000 lesson videos.

Dragonfly TV Real Scientists

<<http://pbskids.org/dragonflytv/scientists/scientist56.html>>

Videos of real scientists at work, for kids.

ACKNOWLEDGEMENT, CONSENT AND ASSIGNMENT

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The Entity releases COSEE OCEAN from any and all claims, demands, actions, costs, expenses, and obligations that may arise out of the use of the Recordings. The signatory represents and warrants that he/she is duly authorized to bind the Entity for whom he/she is the signatory.

Executed under seal on this ____ day of _____, 20__.

Entity:(*print*) _____

By: Being Duly Authorized

Name (*sign*): _____

Name (*print*): _____

Title: _____

Address: _____

Telephone: () _____

ACKNOWLEDGEMENT, CONSENT, AND ASSIGNMENT

I, _____ (*print name*), consent to my being filmed, videotaped, audiotaped, and recorded by _____
(*print entity / organization*) (hereinafter "Entity").

I grant the Entity the right to film, record, videotape, audiotape, photograph, and otherwise record my voice and image ("Recordings"). The rights, licenses, clearances, and releases granted herein apply to all formats in which the Recordings may be produced, reproduced, marketed, or presented.

I assign all right, title, and interest, including my copyright interests, in the Recordings to the Entity and COSEE OCEAN.

I consent to COSEE OCEAN, and others acting with their permission (including its successors, assigns, officers, directors, principals, attorneys, partners, advisors, employees, and agents) using my name, likeness, picture, and appearance.

I consent to the use of the Recordings, as well as any biographical materials I have provided or may in the future provide, to advertise and publicize the Recordings.

I release the Entity and COSEE OCEAN from any and all claims, demands, actions, costs, expenses, and obligations that may arise out of the use of the Recordings.

Executed under seal on this ____ day of _____, 20__.

Signed: _____

Name (*please print*): _____

Title and Affiliation: _____
(*as they should appear in program*):

Address (*optional*): _____
