THE SCIENTIST VIDEOGRAPHER

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eBook: The Scientist Videographer







How to Create A Video Abstract

What is a video abstract? A video abstract is a brief description of a scientific paper in which the authors explain their work on camera, physically demonstrate their methods, use animations or simulations to illustrate concepts, and/or discuss the implications of their findings. By using video, authors can explain their work in a way that the print article cannot—an approach that provides a richer, more diverse experience for the readership.

Why should I bother to make one? A video abstract can raise the online visibility of a published article and its authors; the more people who are aware of your work, the more likely it is to be cited. Search engines rank video high in relation to text-based documents. A video abstract is especially effective if there are few or no videos on the topic.

Why is video so effective?

- Humans are hard-wired to be fascinated by moving images.
- Millions of people search for information in the form of video.
 YouTube, for example, is the secondranked search engine.
- Search engines rank video high compared to text and often highlight them on the first search page.
- People are more likely to click on a video or image link than a text link.
- Information in the form of visualizations, especially video, is more memorable than text.
- Videos are more accessible and understandable by a broader audience than text-based documents.

8 Steps to a Good Video Abstract

The following description provides a step-by-step explanation of how to plan, shoot, edit, and publish your video abstract. I provide links to additional guidance and video tutorials that explain these points in greater detail.

1. Identify the key points to cover:

- What is your article about stated in everyday language?
- •What did your study find—what is your take-home message? Focus on the answer to a main question or hypothesis addressed by your research (not a laundry list of results).
- •What's new or innovative about your study? Put it into a broader scientific or historical context.
- •Why is your study important—to society and/or to the viewer/ reader? Why should the viewer care about it?

Tip: Use your article's abstract as a guide to extract the key points to cover in the video, but don't repeat it word for word.

2. Develop an outline (or storyboard) that details the

sequence in which the information is to be presented.

- •Write out a script to help organize your thoughts.
- Alternatively, storyboard your video with PowerPoint slides.

Tip: Estimate the time required for each segment by reading the script aloud. This will help you keep your video abstract to a target length (no longer than 3 to 5 minutes).

3. Decide what audio-visual media you will use to convey your information:

- •On-camera interview with the author(s) explaining the work.
- •Video showing some aspect of the research (filmed in a laboratory, experimental facility, or field site).
- •Still images (special equipment or facilities, study organisms, graphs, diagrams).
- Animations.
- Text.
- •Voice over (narration by an unseen speaker).
- Tip: Strive to use at least two different types of media to increase visual interest.

4. Select your recording equipment:

- •Camcorder/digital camera.
- Tablet or smartphone that shoots video and still images.
- Computer/laptop.
- •Lapel or other microphone.



5. Select your software:

- Video-editing software such as iMovie or Windows Moviemaker (desktop or mobile versions).
- •Screencapture software to record computer screen (Quicktime, Screenflow, Camtasia Studio).

Tip: Software for mobile devices is often easiest to learn and use. Professional editing software has more bells and whistles but is more difficult to master.



6. Shoot your video:

- •Speak directly to the camera to explain your work. Tip: Don't read your abstract or script; speak in a conversational manner. Keep your eyes on the camera lens or on an imaginary interviewer and don't look down or to the side (this will make you look shifty or uncertain).
- •Record a PowerPoint presentation (using screencapture software) and your voice explaining your work. *Tip: Don't use the built-in microphone on your computer; use an external, good-quality microphone to record your voice.*
- •Record a report from your laboratory, experimental facility, or the field. *Tip: Record from different perspectives to add visual interest (close-up, medium shot, wide shot).*
- •Create an animation or find one in the public domain to use. *Tip:* Assume anything on the Internet is copyright protected; get written permission before downloading



and using any media (images, video, music) that is not in the public domain.

7. Edit your video:

- •Import your media into the movie-editing program or organize in accessible files.
- •Begin building your video by adding clips or images to the timeline (according to your movie-editing software instructions).
- •Trim out any unnecessary or poorly-shot footage.
- •Insert text, images, animations, or footage to illustrate what is being described verbally.
- •Record a voice over narration if desired.
- •Possibly add music, but only if you have permission and/or a license to use it.

8. Publish your video abstract:

•On the journal or publisher's website (follow their directions).



- On your professional website.
- •On your institution's website.
- On a video-sharing site such as YouTube.

Tip: Provide a written transcript along with your video for viewers who may not speak your language well.

How to use your video abstract:

- •If published on a video-sharing site, the video can be embedded and watched in a player on your own personal website or institutional webpage.
- •Send the video link to colleagues, students, resource managers, and others who might be interested in your work.
- •Get a QR code (bar code) for the video link and put it on a flyer or poster describing your study.

 People can scan the code with their phone and watch your video.

Additional Resources

16 Mistakes to Avoid When Making Your First Science Video (article)

What Jurassic Park Can Teach Us About Making Science Videos (article)

How to Record a PowerPoint Presentation (video tutorial)

What is B-Roll and Why Should I Care About It? (article)

How to Create Animations in PowerPoint for Your Science Video (video tutorial)

How to Make a Science Video Without Film Footage (article)

Strive for Brevity in Your Science Video (article)

Sources of Public Domain Images (article)

Where Should I Publish My Science Video (video tutorial)

How to Improve the Audio of Your Video Without Breaking the Bank (video tutorial)

How to make a video abstract with a smartphone.



Example of a video abstract.





DR. KAREN L. MCKEE is a scientist with forty years of international research experience and over 100 scientific articles published in journals such as Science, Nature Geoscience, and the Proceedings of the National Academy of Sciences. She also has published several peer-reviewed videos about her research as well as topics of general interest such as climate change, sea-level rise, and hurricanes. Dr. McKee has worked to encourage scientists, educators, and students to acquire multimedia skills and to participate in broader science communication. She has recently published an ebook, The Scientist Videographer, which is a guidebook for science professionals wishing to add video to their communication toolbox..