

Hi everyone,

have you ever wondered if you should try 360° video? If so, Sibylle Grunze gives you some valuable hints in this newsletter. And have you ever wondered if a video abstract where a scientist presents the most important aspects of his or her work, might add something valuable to the written scientific publication? We have. (And are still wondering.)

If you just want to watch films, this edition will make you happy, too. You can have fun with »Miss Candy«, be upset about a misguided »Ooga-chaka« approach to attract audiences, or cry over the fate of the albatrosses living and dying amidst our plastic waste.

Thilo Körkel, Kerstin Hoppenhaus and Sibylle Grunze

What's going on

How to shoot 360° video so the viewer gets the full experience

360° video has the unique capacity to drop the spectator right into a scene and virtually surround him or her with the action. But so far, the technology has been quite disappointing when it comes to storytelling. So unless we manage to play to its strength, 360° video falls flat and fails greatly.

I recently shot some [360° video scenes](#) for our project on phosphorus, »[The 'miracle mineral' the world needs](#)«, with BBC Future and want to share some take-aways from that work.

In a 360° video the viewers will be standing in the middle of your virtual (video) sphere, so we should make sure that there are things happening all around them in order to encourage them to turn and engage in the action. To achieve this I find it helpful to think of shooting 360° video as of shooting a photo with a very wide angled lens rather than a film. When I make a normal video I can look at a scene from many angles and cut it together in the editing room. When I shoot 360° video, however, I'm in search of that one single place right in the action that captures it all, which is much more like taking *one* photo rather than shooting video.

Also when shooting normal video the camera will often be placed at eye level. But in order to have more movement in the upper half of the sphere in 360° video, we often have to place the camera lower so that for instance people are reaching over the camera and thus give the viewer an arm to follow. And last but not least: due to the extremely wide angled lenses anything that happens further away than a good arm's length will no longer be perceived by the viewer as being »in the action«. So for the viewer to be able to fully engage, you have to crawl right into the scene and basically place the camera in everyone's line of action.

When you are in everybody's way you are in the right place. (SG)

Albatross or Humanity's damaged relationship with the living world

I saw eye to eye with an albatross, crawled into his nest and watched him dance his mating dance. As a matter of fact I was in the middle of a whole colony, getting so close that I could make out the structure of their feathers and touch them and, for some, die painfully with them. The cinematography, sound and approach of this film are exquisite and unique and make this the best holistic film about these sea birds and on plastic pollution of the oceans I have seen. It is the work of [Chris Jordan](#), an American artist whose work, in his own words, »explores the collective shadow of contemporary mass culture from a variety of photographic and conceptual perspectives«.

The inner journey Chris Jordan and his team took is also very immanent in the film. »Studying the newly-emerging issue of ocean plastic pollution, we learned of a stunning environmental tragedy taking place on a tiny atoll in the center of the vast North Pacific Ocean. We immediately began planning an expedition there, and on our first trip to Midway Island in September of 2009, we and our team photographed and filmed thousands of young albatrosses that lay dead on the ground, their stomachs filled with plastic. The experience was devastating, not only for what it meant for the suffering of the birds, but also for what it reflected back to us about the destructive power of our culture of mass consumption, and humanity's damaged relationship with the living world.«

As a way for the team to heal from this devastating experience a second trip was made, making it an open-ended journey with eight trips so far. »Albatross«, for Jordan, is a piece of art: »My wish was not only to tell the factual story of the albatrosses from an observational standpoint, but to convey the intensely vivid sensual, emotional, and spiritual experience of being with them on the island.« He has succeeded.

Released on Earth Day 2018 Chris Jordan offers us »Albatross« in full length (97 minutes) as a free public artwork at www.albatrossthefilm.com. Let's honor his creation by taking time, using a brilliant monitor, connecting a fine speaker system, and getting fully immersed in the experience. And by starting to think about plastic pollution. (SG)

Read more:

www.chrisjordan.com

Video know-how as an all-purpose tool for scientists

When I gave a workshop on »How to make a video abstract« in the Antelope Programme at the University of Basel, which supports young female researchers, I heard some interesting assessments on video abstracts. None of the participants feared that they would not be able to publish papers decently without supplying a video abstract anywhere in the near future. So why had they chosen this workshop over others?

Because all of them had had experiences with job applications that requested a video. Some also saw video as a better way to communicate with the general public, something that is being requested more and more from scientists who apply for funding.

As it turned out the most difficult part for them was to extract the part of their science that could be made into a video for a specific target audience: something that could »stand alone«, could be made into a visual story and would entice the audience to want to dig deeper.

In the end the workshop made sense for all of them: the »video tool box« needed to make a video abstract will be much the same whether you make a video abstract, a short video for the general public or a video for a job application. (SG)

Watch more:

See our video recommendation below: »Video abstract in the wild«

Puzzling over video abstracts

Writing a post about »video abstracts« could have been so easy. Find out the definition of a »video abstract« and watch some »typical« ones. Seek studies which have investigated their impact. Read the paper of a science sociologist reflecting on the benefits of video abstracts to science and society. And, finally, google the top ten video abstracts of the last years. Doing all of this with the idea in mind, that video abstracts might boost scientific communication between peers as well as science communication between science and society to a new level.

However, things are more complicated. There is no consensus on an apparent standard whatsoever, not among scientists, not among communicators, not among publishers. Video abstracts vary wildly in virtually any applicable criterion. Some of their advocates stress the intrinsic value of click numbers, others talk about indispensable »media literacy« or anticipate the potential of videos to convey a deeper understanding of complex matters. And: video abstracts, in general, aren't fun to watch, not even for specifically interested and therefore intrinsically motivated scientists.

There should have been enough time for some standards to develop. In 2013 the Canadian science journalist [Jacob Berkowitz noted](#): »The first (video abstract) may have been a Cell Press video posted on May 21, 2009, that's garnered more than 11,000 views.« ([Watch it here.](#))

But the last relevant paper about video abstracts is from 2014 (hopefully I didn't miss one). Doing a case study, Scott Spicer at the Walter Library at the University of Minnesota [found out](#) that they work: video abstracts help a paper to be perceived by more people. Today, Spicer is still the guy cited everywhere since there's nothing more recent about the subject.

Except for a conference contribution from 2017 by Margret Plank, Attila Dávid Molnár and Paloma Marín-Arraiza, written with the aim »to show how scientists can effectively record video abstracts for their papers on their own, ... and how important it is to extend Media Literacy Education by programs for scientists.« Without sound data, but fully plausible arguments, they state that »sharing scientific results via audiovisual media has become an important part of scientific communication«. Videos »have the potential to make the knowledge gained from scientific communication more useful, by providing a deeper understanding of the experiential aspects of the corresponding contributions published as text.«

While Wikipedia defines: »A video abstract is the motion picture equivalent of a written abstract« and meant to »help draw attention« to the associated paper, »increasing its readership«, Plank et al. expect much more benefit from the format. They agree that a video abstract »is directly linked with a single scientific paper that has been accepted and published in a scientific journal«. But according to them, video abstracts are »not just an audiovisual representation of a traditional text abstract, but a representation of the study as a whole. In three to five minutes, the viewer should be provided with an accurate overview of the background and methods of the study.« (This reminds of Jove, the successful »Journal of Visualized Experiments«, which publishes »peer-reviewed scientific video protocols« to support the understanding of experimental procedures. If Jove videos can be considered video abstracts, then the first one of its kind must have been produced not in 2009, but in 2006, when Jove was founded.)

Apart from academic reflections, »fun« seems to be part of the video abstract story, too. Look for example at [How dog brains process speech \(Andics et al., Science, 2016\)](#). Dogs (and cats, probably) add to popularity: This clip has 446.000 clicks on YouTube. On the CellPress channel you find [Personalized Nutrition \(Cell, November 19, 2015 \(Vol. 163, Issue 5\)\)](#) with 119.291 views. Or watch the scientist actors at [Deconstructing climate misinformation to identify reasoning errors](#) with 45.478 video downloads. The latter article is also accompanied by Altmetrics Data: probably thanks to the accompanying video it was mentioned in 4 blogs and 10 news outlets. Additionally, 585 tweeters and some redditors were counted. (All numbers in this paragraph from March 13, 2019.)

Obviously, this ramble through an unknown landscape leaves many questions unanswered. Does it add to scientific advance, if peers can watch a video abstract instead of reading the text abstract? Does it add to the relevance of a paper if an accompanying video abstract raises its visibility? Shouldn't funny videos better be named »popular science web videos« instead of »video abstracts«, to avoid confusion between science communication and scientific communication?

And finally: Does a decade of little progress in developing the format really indicate a success story? After all, [TED](#) lectures might be dubbed abstracts, too, and were an overwhelming success in the meantime. (tk)

New: the »Science & Video« newsletter archive

Previous editions of this newsletter can now be found in the [»Science & Video« newsletter archive](#). You are also invited to contribute topics, videos or even cooperation ideas that you would like to see in our newsletter. We would be happy to hear from you. (kh, sg, kh)

Upcoming events

[»media meets SCIENCE«](#), Munich, Germany, 20 May. This conference in German language aims at bringing together representatives of the media and the sciences. The goal is to identify common interests and innovative fields of cooperation and business. Partners include Fraunhofer Society and Max Planck Society.

[»Docs+Science«](#), Krakow, Poland, 26-30 May. As part of the Krakow Film Festival, the non-competition section »Docs+Science« »consists of documentaries about science, discoveries, innovations, as well as the people who are behind them – scientists, enthusiasts and explorers.« The audience also has the chance to »meet with distinguished scientists who will comment on the discussed phenomena«.

[»CineGlobe«](#), Meyrin, Switzerland, 2-7 July. The upcoming edition of the short film festival focusses on »Transformation / Transcendence«. Competitions include Fiction, Documentary and Youth. CineGlobe does not want to teach science, but wants to »demonstrate the inspiration that science can provide and to show how science and culture are both critical in understanding our society«. CineGlobe takes place at the European Organization for Nuclear Research, CERN.

[»Science as Storytelling: From Facts to Fictions«](#), Heidelberg, Germany, 24-25 October. This two-day-conference in English language at the famous European Molecular Biology Laboratory isn't specifically about video. Instead it explores »the role of narrative in the communication of science« – and what could be more important for science films? The meeting is part of the EMBL »Science and Society« conference series which is mostly attended by students and the scientifically interested public.

Videos only look good if you watch them

Video abstract in the wild



Natural Selection and Spatial Cognition / Curr. Biol., Feb. 7, 2019 (Vol. 29, Issue 4)

By Vladimir Pravosudov and Benjamin Sonnenberg

This is a great example of a video abstract that works well for the audience and is a good addition to the paper, while the associated workload for the two scientists is still acceptable. They take us out with them to their field site in the snowy Sierra where they study natural selection and spatial cognition in chickadees.

The video and science presented is very well structured and explained by the scientists, making it easy to follow and understand. Their enthusiasm and love for the small birds reaches out to the viewer making it fun to watch. It is also a good example of how a very basic but nice looking animation can be used to clarify a point without someone having to spend months on making it.

Enjoy and ... sing Cheeeese_burger when looking for a new mate! (SG)

The nefarious deeds of »Miss Candy«



»The beast in yeast«
By Biofaction

This well-made animation video is great fun, gets your pathogenic yeast knowledge up to speed in no time and uses standard cinematic cues like music, a Zorro mask and a nerdy German accent really well. These cues make it easy for the viewer to quickly grasp and understand what is going on. If *Candida albicans* alias »Miss Candy« enticed you by showing you her darkest secrets, here is a full article in the

[New York Times](#) on her. (SG)

Ooga-chaka Ooga-Ooga



Hey Discovery #ItsOurWorldToo By [Teagan Wall](#)

A big round of applause to Teagan Wall, for setting the record straight when a big TV network seriously screws up.

On April 2, she put together this video of women in science (more than 400.000 views) in one afternoon as a reaction to an unbelievably stupid [Discovery Channel Ad](#). Promoting Discovery with the tagline #TheWorldIsOurs the ad features 24 guys and 1 voiceless, nearly naked woman. Thank you, Teagan Wall, for channeling your anger into the #ItsOurWorldToo video and sharing it.

Some more thoughts on »the face of science« can be found [in this article](#) on atlantic.com. It tells the story of the sexist vendetta against Katie Bouman which was triggered by reports about the young researcher's contributions to the first black hole picture ever.

By the way: If you want to add some great scientists to your twitter feed you might check out the ones featured in Teagan Wall's video. (SG)

»Science & Video« is a newsletter for science communicators. In »Science & Video« [Thilo Körkel](#) (tk), [Kerstin Hoppenhaus](#) (kh) und [Sibylle Grunze](#) (SG) pool their long-standing expertise in the field of science communication and moving images. We joyfully welcome the effects of digital disruption, are committed to defending high quality standards, and hope to be part of a future in which science communication via digital media has an increasingly powerful impact on society. Contact us at thilo.koerkel@nature.com, hoppenhaus@hgmedien.com, grunze@hgmedien.com.

IMPRESSUM

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