Oceans online: Innovative uses of the internet for ocean planning and management

Sharing information and engaging stakeholders through the internet is an increasingly important part of ocean planners and managers’ work. New ideas and tools for online engagement are emerging daily. But it can be difficult for planners and managers to carve time out of their already busy schedules to keep track of what is out there and take advantage of these new tools and techniques.

In this issue of MEAM, we cover highlights from the OceansOnline conference held in August 2016 in conjunction with the 4th International Marine Conservation Congress. Social media experts and practitioners who are successfully using internet tools for their work provided attendees (and now MEAM readers!) with great tips for engaging online. And we explore some of the innovative uses of the internet that we heard about at OceansOnline – ranging from live broadcasts of fisheries management meetings to fishermen at sea to experiential social media campaigns using Instagram – for communicating, bridging boundaries, and conducting research.

Incorporating digital storytelling in marine science outreach and communication

By Lisa Tossey

Editor’s Note: Lisa Tossey is the social media community manager and editor for the National Marine Educators Association. She also supports Delaware Sea Grant’s digital outreach and social media channels as part of her doctoral studies on the use of educational technology in marine science at the University of Delaware. She can be reached on email at tossey@udel.edu and on Twitter at @tossey.

Storytelling is an ancient art that helps forge meaningful connections between communicators and their audiences. It is constantly evolving – from cave paintings to printed pieces to the Internet – as new tools become available. Today, thanks to emerging digital technologies, we now have a dizzying amount of tools at our fingertips to “tell the story” of our work. But which ones are the best for communicating science?

We raised that question at OceansOnline during a facilitated discussion on the topic, and touched on everything from social media platforms, to using images and video in outreach efforts, to embracing new technologies such as virtual reality.

Here are a few ideas and tips from the session:

- When it comes to social media, you don’t have to do it all! Take some time to “lurk” on various platforms to see how they’re used and what audiences tend to use them, then experiment on a few to see what might be the best fit for your field or organization.
- Social media isn’t a one-way street – that’s why “social” is in its name! Don’t just use it to push out information – engage with other users and your followers, share information that’s relevant to your field or community, and have fun with it!
- Images are truly worth 1,000 words online. Images drive engagement and an eye-catching photo, animated gif, or video clip can serve as a great “hook” to grab users’ attention in a sea of social media posts. Photos showing action, hands-on activities, or a detailed view of a critter or landscape can be particularly effective.
- Post with purpose. You should always be able to connect your social media posts, whether they are a photo, link, or shared information, back to your work or organization’s mission. This helps to build your reputation as a trusted resource in your field.
- Short format videos that are popular on platforms like Instagram are perfect vehicles for bite-sized, sharable science pieces. Use them to share fun “Did you know...” facts, highlight specific areas of work or critters being studied, or show scientific techniques.
- And most importantly – don’t be afraid to experiment online. Try something new, assess how it works, tweak your approach if necessary, and try again!

If you’re interested in learning more about this, see this Prezi presentation.

Bringing fishermen to the table: The use of combined tools to facilitate global engagement and secure long-term participation

By Maria Campbell, Edd Hind, Richard Lilley, Laurence Hartwell, and Katrina Borrow

Editor’s note: This contribution was written by Maria Campbell of Plymouth University, Edd Hind of Manchester Metropolitan University, Richard Lilley of Cardiff University, Laurence Hartwell of Truro & Penwith College, and Katrina Borrow of Mindfully Wired Communications. Their group can be reached by email through Maria Campbell at maria.campbell@plymouth.ac.uk.

At OceansOnline, our team demonstrated an exciting new technology for engaging fishermen in science and policy discussions. In 2014, Laurence Hartwell – a social media expert and lecturer, former skipper with over 25 years of fishing experience, and creator of Through the Gaps blog, one of the most widely read fisheries blogs – reached out to
By Stephanie Januchowski-Hartley

Fostering marine-freshwater conservation collaborations using Twitter and other social media

and so too will their institutes. Help institutions see the value in scicomm. In this ever-changing media landscape, scientists who are willing and able to ride the wave of social media will see the benefits, tenure committees may still put the most value on publication records and impact factors, the ability to track a paper’s reach on the internet through tools like altmetrics will become more important. As young scientists attain leadership roles, priorities with scicomm will inevitably change. But we are at a turning point, where scientists excelling at scicomm must be good at balancing science communication and science: Achieving effective outreach when it’s not in your job description.

By Susan von Thun

Editor’s note: Susan von Thun is a senior research technician at the Monterey Bay Aquarium Research Institute. Her primary responsibility is identifying and annotating organisms, behaviors, equipment and geological features from the institute’s ROV videos. In addition, she manages the institute’s Facebook, Twitter, Google+, and YouTube accounts. She can be reached by email at svonthun@mbari.org and on Twitter at @omgirlsvt.

With advances in technology rapidly changing the way we understand and navigate our world, effective science communication (scicomm) has never been more important. Helping the public realize the impacts humans have on the environment is critical as we face increasing threats to the ocean such as climate change, ocean acidification, habitat destruction, pollution, and overfishing. Social media has emerged as a tool that makes it possible to reach thousands, even millions, of people with relative ease, but to really make an impact, stories need to be compelling and accessible. Accounts that use storytelling to effectively convey their message, such as the Monterey Bay Aquarium’s Facebook and Twitter, National Geographic’s Into the Okavango Instagram, and Sri Lankan marine biologist Asha de Vos’ vlogging and SnapChat stories, are available in the palm of our hands on our mobile devices. So, if giant screens like IMAX were once an important part of the science learning landscape, can mobile screens now play that same role?

I believe that, yes, social media applications can indeed be effective tools for science communication. One of the most engaging campaigns I’ve seen that is already bringing science education to people around the world is National Geographic’s Into the Okavango Instagram. The account follows scientific explorers through the African wilderness while sharing photos, videos, and audio recordings of their journey to followers in real-time. Content generally follows a narrative structure while using high quality images and storytelling captions. The use of first-person videos, vlogging, and mini-documentaries allow followers to feel like they are part of the scientific expedition. Stories focus on passionate scientists who share their raw and emotional experiences in real-time. They encourage followers to get involved by commenting on their posts throughout their journey. Like miniature interactive IMAX experiences, these posts catch audiences in fleeting moments and can be used to draw them deeper into science communication.

At my facilitated discussion at OceansOnline, participants agreed that Instagram has significant potential as an outreach tool for their research projects. Some of the concerns expressed were the potential difficulties of uploading images and videos in real-time on the water and the time commitment and skill level needed to pursue an experiential social media campaign, particularly on a shoestring budget. As a reply to these concerns, Sri Lankan marine biologist Asha de Vos discussed her experience using Instagram on a tight budget and under time constraints in remote settings. She uses Instagram as her main outreach tool for her research in Sri Lanka and told others to try it and put themselves out there. I too encourage marine scientists to try using Instagram as a means of public engagement using some of the experiential techniques described above. Start your own mobile IMAX experience and bring others into the world of marine science.

Instagram is the new IMAX: Communicating ocean science through experiential social media campaigns

By Kat Middleton

Editor’s note: Kat Middleton is a science communications specialist at Laurentian University with experience in marine planning and protected area management. She can be reached at katmiddleton@gmail.com or on Twitter at @katmidds.

While I was growing up, IMAX films were the most exciting science learning experiences a person could have. But now, visual content such as 360 degree panoramic footage and videos and SnapChat stories are available in the palm of our hands on our mobile devices. So, if giant screens like IMAX were once an important part of the science learning landscape, can mobile screens now play that same role?

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Balancing science communication and science: Achieving effective outreach when it’s not in your job description

By Susan von Thun

Editor’s note: Susan von Thun is a senior research technician at the Monterey Bay Aquarium Research Institute. Her primary responsibility is identifying and annotating organisms, behaviors, equipment and geological features from the institute's ROV videos. In addition, she manages the institute's Facebook, Twitter, Google+, and YouTube accounts. She can be reached by email at svonthun@mbari.org and on Twitter at @omgirlsvt.

With advances in technology rapidly changing the way we understand and navigate our world, effective science communication (scicomm) has never been more important. Helping the public realize the impacts humans have on the environment is critical as we face increasing threats to the ocean such as climate change, ocean acidification, habitat destruction, pollution, and overfishing. Social media has emerged as a tool that makes it possible to reach thousands, even millions, of people with relative ease, but how can scientists leverage their stretched resources to reach these massive new audiences? The passion scientists have for their research is key to sparking public attention as to why marine science matters. But many scientists struggle with the time-consuming undertaking of regularly engaging audiences to build a following and influence the masses.

With a growing number of peer-reviewed publications examining the value of using social media in scicomm, many scientists are already convinced of the benefits. Using social media is a great way to hone your message by allowing you to practice your elevator pitch, i.e., distilling your science into bite-sized, compelling stories that will grab the reader/viewer/listener and spread your research to a wider audience. Yet in research institutes and academia, the use of social media is rarely prioritized by those in supervisory roles. Students and early career scientists may be expected to do their own scicomm with little help from their institutions, forcing them to do this work on their “free time” versus “work time”.

As young scientists attain leadership roles, priorities with scicomm will inevitably change. But we are at a turning point, where scientists excelling at scicomm must be good examples for their peers, letting the practice prove itself. It is hard to ignore a peer-reviewed paper when it gets picked up by the media and goes viral on the internet. While tenure committees may still put the most value on publication records and impact factors, the ability to track a paper’s reach on the internet through tools like altmetrics will help institutions see the value in scicomm. In this ever-changing media landscape, scientists who are willing and able to ride the wave of social media will see the benefits, and so too will their institutes.

See the live-tweets from the OceansOnline session on Storify.

Fostering marine-freshwater conservation collaborations using Twitter and other social media

By Stephanie Januchowski-Hartley
Marine and freshwater ecosystems are highly connected both naturally and with regard to human uses and disturbances. Why then do marine and freshwater conservation scientists seem to be disconnected from each other when it comes to research and conservation? It could be because there are few institutions or programs that have joint marine-freshwater research programs or because it is difficult to consider cross-system movements of materials, nutrients, species, humans, and disturbances from a conservation perspective. With limited opportunities for interaction within institutions, how then can marine and freshwater conservation scientists begin to come together to build relationships and collaborations and solve common problems such as water quality degradation and corresponding loss of ecosystem services?

In our facilitated discussion at OceansOnline, we identified Twitter as a useful social media platform for engaging with scientists both outside of one’s direct research domain as well as further field. I offered an example from a colleague who studied marine systems for her master’s degree but is now working on freshwater ecosystems for her doctorate degree. She started using Twitter as a way to “get to know” freshwater researchers in her study area and learn more about the types of research and methods that freshwater researchers in her area are doing and using. I recommend that marine and freshwater researchers wanting to start engaging with the other community start by using Twitter to retweet critical freshwater science research using hashtags that marine scientists commonly use and vice versa.

While Twitter is a great tool for building relationships, and collaborations, across boundaries, we also discussed the need for scientists to have a strategy and clearly defined goals for maximizing the potential for social media to reach out to scientists (or indeed achieve any other aspirations they have for social media). Social media can seem nebulous if you don’t have a strategy or goals for why you are using it. For scientists interested in learning more about setting goals and objectives for social media, I recommend a recent blog-post by Dr Paige Brown Jarreau (@FromTheLabBench on Twitter).

To close, reaching out to others across defined disciplines can be intimidating but can also result in rewarding relationships. As a freshwater scientist, I learned a lot from attending IMCC4 and engaging with marine scientists. I hope that sharing our discussions offers some inspiration and guidance to help foster more marine-freshwater collaborations. Go forth and collaborate!

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