

Analysis: Connecting clicks to context: National Geographic's contextual approach to covering environment issues in a digital era

Michael Lombardi spends countless hours hundreds of feet under the ocean's surface, sometimes in the Atlantic studying the Bahamas' bottomless sapphire waters, other times in his home territory of Rhode Island. No matter the locale, he always brings his underwater experiences back to sea level with his blog.

"People today they're hungry for content, for media and I find that the trick is you want people to be able to as nearly experience what you're experiencing as it's happening," said Lombardi, an oceanographer and National Geographic Explorer. "You want it to seem like that person's...sitting right there next to you experiencing what you're experiencing."

The Exosuit is Lombardi's latest project to go digital. It's a special underwater diving suit, reminiscent of an astronaut suit, which will take him 1,000 feet deep into the ocean and allow him to stay underwater longer to study the ocean's environment. His blogs chronicling the Exosuit Project are posted to National Geographic's website with pictures and videos to give a 360 degree view of this entirely new technology that could change what is currently known about the ocean's environment.

Just as the Exosuit can take Lombardi hundreds of feet deeper into the ocean, National Geographic's rich multimedia takes readers on a journey further into science and environment stories, minus the scientific contraptions.

“Overall, the grand tradition of the National Geographic Society is to put compelling visuals with the stories that not only illustrate what you’re talking about, but add context and additional information to it and whether through a single image, a photo gallery or a video, that’s the biggest thing that we do,” said Andrew Howley, missions online and interactive director for National Geographic.

No story on National Geographic’s website is without a photo, a video, a map or an illustration. Imagery is not a default for National Geographic, but a purposeful way to engage audiences and encourage them to learn more – a core mission of the educational nonprofit.

Multimedia is used for all coverage, but it can do especially well for explaining environment stories, which typically involve multifaceted scientific concepts.

“Things like science and the environment and climate are really kind of ripe for that because I think people feel like they’re either being hit over the head with moral issues or they’re being fed a lot of data that they just can’t put up with. So, trying to find that middle ground how to make something complex very palatable digestible is what we try to do,” said Hans Weiss, the senior video producer for *National Geographic Magazine*.

National Geographic is using innovative and engaging techniques to deliver clickable multimedia that explains environmental stories to readers, such as how the biodiversity of the ocean is affected by climate change or why pollution is making storms stronger, while also educating them about the complex concepts involved.

125 years of media evolution

In 1888, the founders of the National Geographic Society set out to fund and promote research. Its magazine cover bore no glossy photographs as seen in today's version, but became the portal to show the swift pursuit of the organization's mission.

Black and white photographs of the first successful trek to the North Pole and the excavation of Machu Picchu appeared before the magazine eventually published its first colored photograph in 1914.

Shortly after, National Geographic proved to have a large role in establishing America's national parks. Editor Gilbert H. Grosvenor dedicated the April 1916 issue of the magazine to showcasing America's great lands and sent a copy to every member of Congress. He then helped draft legislation for the future National Park Service.

Alongside its influential role in promoting conservation and exploration projects around the world, the magazine became known for its photography. From making the first photographic survey of the Northern Hemisphere's night sky, to the iconic photo known simply as "Afghan girl", National Geographic has continuously pushed the boundaries in photography and continues to set the standard.

Decades after the establishment of the National Park Service, National Geographic photography proved critical in another major conservation milestone. In 2000, Explorer in Residence Mike Fay completed a 456-day, 2,000 mile-long Megatransect across the Congo Basin of Africa to survey its ecological and environmental status. Photographs and documentation of Fay's project convinced

the Gabonese government to establish 13 national parks in an effort to preserve the lands and protect endangered species from poachers.

“Without the imagery it’s always going to be nebulous, you know. It can be real or not real, but with the imagery you can just make it real for people,” Fay said.

Today, the National Geographic brand spans across the globe and includes 37 international local-language editions and about eight million total subscribers to the magazine.

Dennis Dimick, the executive environment editor for *National Geographic Magazine*, estimates that at least 40 percent of the magazine’s current audience derives from these international publications.

“As a result, stories that focus on domestic, U.S. issues, environmentally, are not going to necessarily be the kinds of pieces that resonate with our readers overseas,” Dimick said.

A growing international audience has changed the organization’s approach to environment coverage, taking it from stories that focused on national parks and domestic energy, to broader pieces on climate change and global energy issues.

In 2004, for example, the magazine dedicated a 70-page spread to the issue of climate change. Around this time “green” content was at a high point with many news outlets investing in separate websites or environment desks dedicated to all things green, such as *The Washington Post*’s “Sprig” and *The New York Times*’ environment blog “Dot Earth”. National Geographic had its own “Green Guide”, which is now fully integrated with the website.

Interactive graphics have become one of the latest forms of multimedia National Geographic incorporates to engage its audience about environment issues.

The “Great Energy Challenge” is a section on the website that incorporates interactive quizzes to teach its audience about energy consumption. “What you don’t know about solar power” or a quiz on “Vampire electronics” interpret environmental science in a way that is entertaining for the participant.

“We’ve always brought the science to life and I think interactives allow us to perform that sort of translator popularizer role even better because you could really break stuff down and explain how something works and be able to connect with a reader in a way that text only, say, could not and I think that makes a really big difference in our teaching role and that role is essential to what National Geographic has always done,” said Dan Gilgoff, the director of National Geographic News.

Focus on imagery

National Geographic Magazine’s content is driven by its photography. From the very first stages of story conceptualization, it is the photos that are thought of – not text.

“It’s wonderful because it’s a way of giving your story a much bigger impact and a much broader reach,” said Robert Kunzig, an environment editor for the magazine. “...At the same time it’s intensely aggravating because you have ideas that you just know are good stories but you have to get your colleagues in the photo department - you have to sell it to them.”

One such story Kunzig and another writer could not successfully sell was about the bacterial disease that is devastating the Florida citrus groves. Without the promise of visual variety, the photography department couldn't approve the story.

A few months later, the story appeared on the front page of *The New York Times*.

Dimick shared Kunzig's frustration saying, "We could've done that story well. We could've done it in words, but the challenge is that what are you going to show visually that's surprising and unusual?"

National Geographic's emphasis on imagery sometimes limits its coverage to certain environmental issues that are more visual like global warming or water scarcity, while newer issues like fracking are not often covered because they lack compelling visuals.

Small-scale environmental projects done by National Geographic Explorers are also not typically chosen because there are no photogenic images to entice the audience.

Melting glaciers or vast landscapes with wind turbines tend to offer more captivating images than pictures of obscure equipment used to turn garbage disposals into composting machines.

This focus on imagery stands for all of National Geographic's outlets, even for those that publish online content daily.

Brian Clark Howard covers the environment for NationalGeographic.com and says the focus on photography makes it much different than other websites he has

worked for in the past, some of which would use the same photos for every story about a similar environmental topic.

“Because the photos are so important here, and we believe people really expect high quality original photos, we just wouldn’t do that here because we think our readers wouldn’t like that. So, that’s good and bad. It does probably make a better user experience but it can slow down the process,” Howard said.

Photographs, in fact, are a large reason why the magazine’s deadlines are so long. National Geographic plans out its stories months in advance, as opposed to most news organizations that have to turn stories in a matter of days or weeks. It allows enough time for the photographer to go out into the field and capture enough photos to send back for review well before the story is published.

Interaction reaction

In today’s digital world, there are many opportunities to visualize and engage the public about environment issues, but one-note articles on environmental disasters or brief news videos about green energy abandon any background or context. Chances for enrichment are wasted.

“Whether it's crop failure, whether it's political unrest, or the impact of storms on human populations, we're really just trying to do many of these kinds of stories that help explain why you read about a lot of stuff in the news,” Dimick said. “Then, the real challenge is then how do you take what you know and frame it and present it in ways that are going to capitalize upon sort of the emergent platforms that everybody's moving towards.”

National Geographic is embracing new online platforms to carry its strong reputation for imagery into the digital arena. For the past three years in a row, *National Geographic Magazine* has won the National Magazine Award for best tablet magazine and won the best multimedia award for both 2013 and 2014.

According to a 2012 report from The Audit Bureau of Circulations, National Geographic's digital editions and apps contributed significantly to the organization's "brand universe" of 30.9 million people. That year, its apps had more than five million downloads and its tablet edition of the magazine had more than 100,000 subscribers.

Weiss says the tablet edition offers innovative ways for translating environmental data that might otherwise overwhelm readers.

"If we can take a very dense graph or map or something that you would see in print and somehow allow the user to swipe it, to build layers, to take away layers, and if that makes it easier and better then we'll do it and that's considered a successful piece to the story," Weiss said.

Dimick, Kunzig and other editors of the magazine coordinate with both the video and graphics departments to come up with what multimedia elements will best compliment the environment stories for the magazine.

Graphics are often used in environment stories to explain complex data. A graphic titled "Coal and Climate Change", for example, shows the data for the top ten countries that consume coal. It doesn't just use one chart, but is a series of multiple charts and illustrations to visualize the amount of coal used and to demonstrate how carbon is captured.

Juan Valesco, the art director for the magazine, says the print publication can only use a finite amount of the graphics that can be shown on digital platforms.

“It's always helpful because it allows you to introduce more context and I mean [the] magazine is very small in size and sometimes we spend months researching for a new experiment and creating graphics that are very important but we just cannot show because we cannot try to offer too much information in one,” Valesco said.

Collaborating for the click

Like all media organizations, the first and most important task at National Geographic is getting the audience to click.

Mark Bauman, the former executive vice president of Missions at National Geographic, says it's important for the audience to build an emotive connection to the content they are experiencing. Connecting hearts with minds is half the battle and, ideally, once that connection is made, a pyramid effect will begin in which readers become more involved in what they are consuming.

“The first step is a single click online, or the decision to watch an individual program, but we try and provide the ability to go deeper and deeper across a lot of different media,” Bauman said. “We go after audience on the platforms where they spend most of their time. We try and create the introductory opportunity there and then create deeper opportunities for them to learn more on other platforms.”

Iconic and compelling photographs are known to draw in clicks, but short-form videos are another common introductory outlet for environment stories

because they can easily create feelings and emotions without overwhelming viewers about environmental issues.

“It’s a one story video, but to frame it into the bigger story and be the doorway into the viewer’s knowledge base growing - we always try to do that with every story to get them to go deeper into something whether it was an ocean issue, an environmental issue connected to the atmosphere or something that was pollution related,” said Art Binkowski, video director for Missions Media.

Videos are sometimes embedded in blogs or article pages on the website to give more context. National Geographic has found those pages get more clicks and people spend more time on the page to watch the video.

For the digital edition, videos are another feature to take the reader deeper into a story. “The Comeback Croc”, for example, was a story published in July 2013 about why caimans are appearing back in an area of Brazil where they were thought to be extinct.

While the photographs of the caimans are very visual, the video features shots of the animals’ movements and also has the photographer’s first-hand account of the experience while he is in the water taking shots of the caimans.

One issue, however, with the strategy to use multimedia as the entryway to greater audience exploration on the website is that navigating National Geographic.com can be difficult. The site has all the features of the society: the magazine, the channel, digital news, explorer blogs, etc., which can create confusion.

In October 2013, National Geographic launched a new layout of its website that was created, in part, to improve navigation. The cleaner looking layout also

makes the site adaptable to newer forms of interactive multimedia seen on the tablet edition of the magazine.

Now, stories published in the magazine take on a completely different persona online. “The American Nile” for instance, is a story that integrates audio, time-lapse photos, maps and video, but all of those elements are not listed on the sidebar, they are interwoven with the article so the audience views all the elements as one complete experience. Scrolling through each section of the article brings the reader to each individual multimedia element at the appropriate moment.

As it currently stands, the website is not completely redone and many pages still have the old layout. Rebuilding the website to include more of these interactive stories is a significant endeavor and will likely influence all areas of National Geographic’s coverage, but it also coincides with a major change to the organization itself.

During the past two years, National Geographic’s Digital Media and Magazine departments have gradually come together to form a collaborative effort. Until now, the departments were two entirely separate entities. The change is to create consistency between the magazine’s content and online content.

Several people were hired on to help guide coverage as the two departments meld together.

Mike Schmidt is the new multimedia director for National Geographic and manages the video team. This team is comprised of Weiss’s video group that builds the tablet edition of the magazine and the Digital Media video team that does everything from news videos to kids videos for the website.

Schmidt says there will be elemental changes to the way video is done and the video team will likely put greater focus on news videos.

“It's a great time here because all of a sudden, the things that National Geographic is able to do really, really well in print and in the iPad edition - we're now finally able to do some of that stuff on the actual Internet, which is really, really cool,” Schmidt said.

The April 2014 launch of “The Future of Food” is another example of how National Geographic is building up its online capabilities. The eight-month-long series is published on a separate website, Food.NationalGeographic.com.

News articles, photographs, magazine articles, social media, a daily food fact and even a blog called “the plate” are all compiled on the site to show how food impacts people’s lives and our world’s environment.

The series is the latest major environmental piece from the organization since its collaboration and change to the website. The food site takes on the same feel as the new layout, with rows of squares that link to each feature and photos on each square, rather than a list of links to articles.

Room for improvement

It is too soon to tell how the new website will influence the organization’s readership, but National Geographic is hoping it will attract a younger audience to the magazine.

Kunzig says a great predicament with the magazine is that its readership has fallen from 12 million to four million in the U.S. over the past 20 years as the age of its subscribers continues to get older.

“Everyone around here wonders 'Hmm, how long is there going to be a print magazine?' Maybe it'll last indefinitely. Maybe it'll last 10, 20 years. We don't know. So, we're all feeling we've got to adapt. It's a digital world. We've got to grab the opportunity and make something, make something good that's still true to the history of this place and still ourselves,” Kunzig said.

Its investments in digital are the beginning of what National Geographic hopes will be a solution to fixing its decline in subscriptions, but Dimick says there needs to be a greater focus on mobile apps.

Social media is another way it has tried to diversify its audience and reach younger people. National Geographic has more than 25 million likes on Facebook and more than 6 million Twitter followers on just its main social media pages, but it capitalizes on social media interaction most by using Facebook comments at the bottom of online articles.

A new comment portal allows readers to share their Facebook comments on other social media streams, which potentially brings more people to the web page.

While social media is a great way to get feedback from readers, consumers now are looking to be more involved, to have some sort of say and be able to interact with the content they read, watch and listen to.

“We find that our readers want to be more empowered to take action. It's always been a question - what's the role of media? And encouraging people to do something versus just reporting on things, but we've found that our readers definitely want information so they can take their own next steps. So sometimes it's

hard to present that in a way that's not going to be too advocacy-ee or in a way that will be authentic," Howard said.

For environment coverage, the organization sometimes struggles with where to draw the line between straight reporting and advocacy. It has a unique position as a non-profit that funds a lot of scientific projects, but there's a debate on whether it should go the extra mile to advocate for certain issues.

At least for now, the goal is not to advocate, but continue to educate.

"I think the barrier is perhaps our own tendency to sort of talk amongst ourselves, to talk to people who are already onboard with like the environmental movement or people who are kind of inside science and the challenge being to connect with a readership that's kind of a lot broader than that," Gilgoff said.

While the future direction of National Geographic is unknown, the need for context in environment stories will always remain.

If the organization continues to push for innovative, interactive media to engage its viewers on complex environment issues, there's plenty of reason to believe that there will be a bright future for National Geographic's environment coverage.