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Ocean Rising

THE QUEST TO INSPIRE THE PUBLIC



Ocean Rising

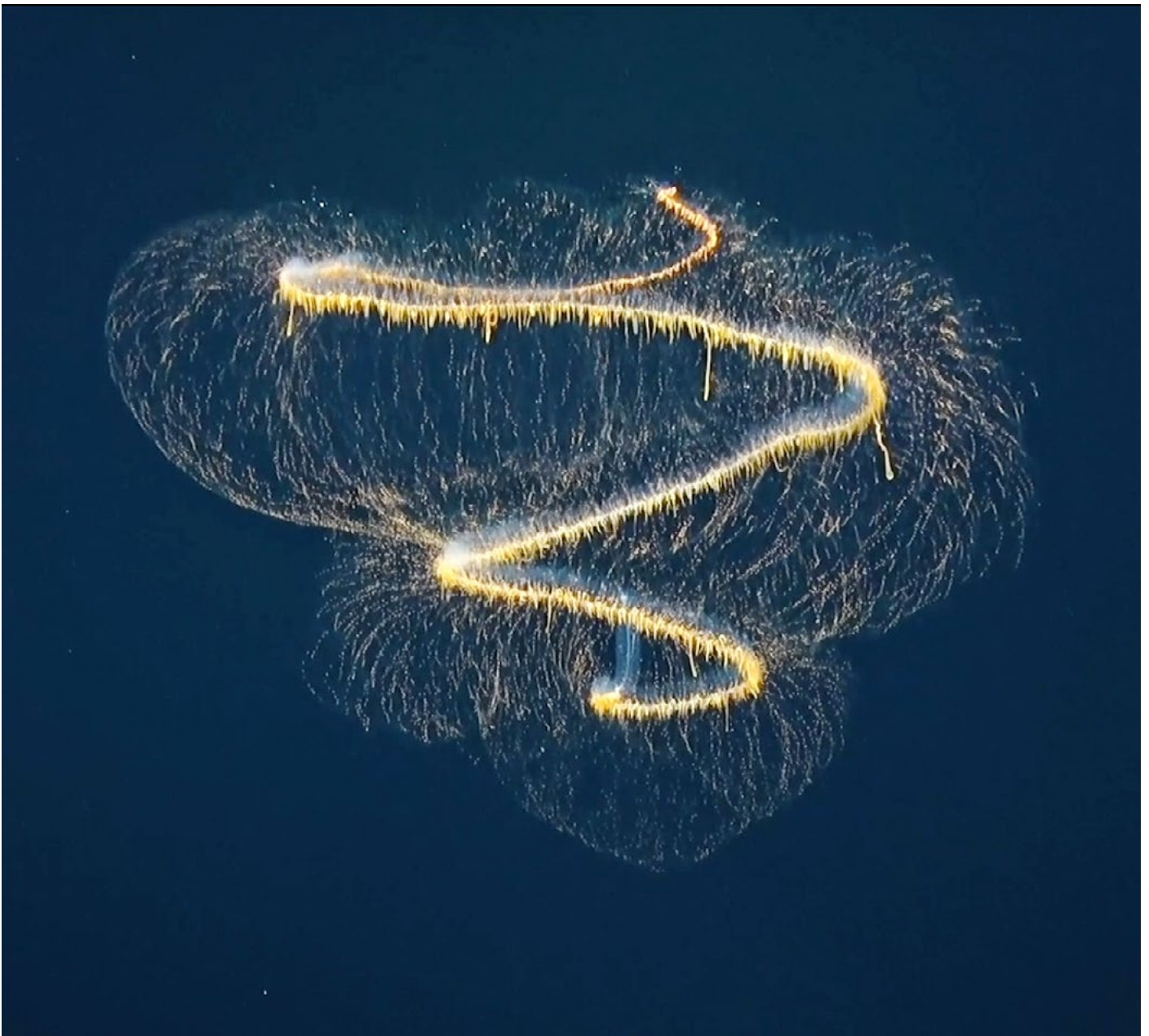
THE QUEST TO INSPIRE THE PUBLIC

INTRODUCTION

Our modern world came to a standstill in 2020, with the global COVID-19 pandemic pausing the fast-paced existence many of us led and proving unequivocally that existential threats are not just the stuff of Hollywood disaster movies. What steps would humanity have taken if we had known years in advance the turmoil that 2020 would unleash? We can't change our past, but we can, with global knowledge and awareness, act to create a harmonious and healthy future.

While often not at the forefront of conversation on the global stage, our ocean is the backbone of climate and life on this planet. Every day we see signs of its impact - in our weather, in nature, along our coasts. It is used to transport goods across our globe, feed more than half the population, and keep humans breathing. The ocean is a magnificent resource that quietly gives to all, but is taken for granted and rarely recognized for the role it plays in planetary and human health. In order to change this status quo, we need to inspire the public about the ocean as they are inspired by space.

*What steps would
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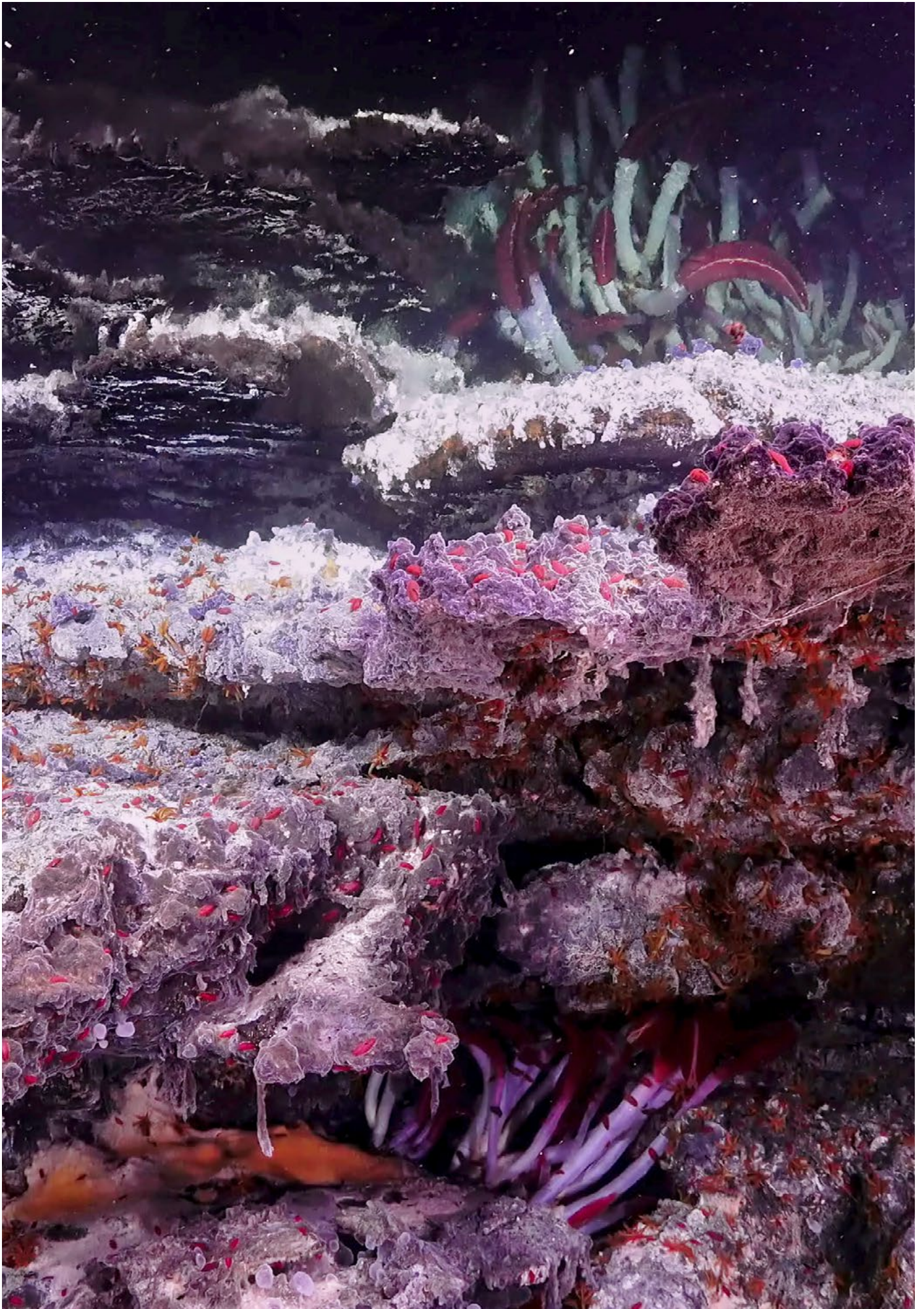


SPACE AND OCEAN INSPIRATION

Technology makes it possible to walk the deepest depths of the ocean and see alien marine life without leaving your living room; however, there is a greater interest in searching for life on other planets. More than 21 million people watched the rover, *Perseverance* touchdown on Mars to begin its rock-collecting mission and search for signs of life, but when a marine scientist brings back volcanic rock from deep sea hydrothermal vents teeming with new life forms, the public barely blinks.

Those who explore the oceans, discovering alien life forms and strange and marvelous landscapes on a daily basis, often wonder why public interest in space exploration is so much greater than in ocean exploration. Is it simply because anyone can see the stars but not everyone lives by the coast, and those that do cannot see what hides beneath the sea surface? No - research shows there is more to this dichotomy than meets the eye.

The two communities have distinct and critical differences in how they inspire and engage a broader audience (Virmani, 2017). While space stories are generally positive, trigger the imagination, and are focused on exceptionalism, coverage of the ocean is negative and tends to be driven by pragmatism and problems. Popular culture and future technological inspirations revolve around space stories, whereas ocean tales are typically set in the past. Conversations about the ocean often have a call to action, which may alienate or even bore a segment of the population. Space conversations differ in that they encourage fun and creativity and although space is currently out of reach for most people, space narratives are mission-based and more easily understandable. Ocean narratives are often idea-based and therefore harder for people to grasp, perversely, making the ocean more inaccessible.



THE CHANGING TIDE

Presently, with the world's attention focused on human health and the economy, the ocean has fallen further down the news agenda. The good news is the growing interest in all forms of science, and a hunger to reconnect with our natural world with positive stories that lead people to explore all frontiers and achieve positive climate action. We have an opportunity to reframe the ocean as exciting, interesting, and spectacular.

As we aim to build back better in a post-COVID world, how do we get the populace to consider the ocean and its impact on our livelihoods, and inspire the public in substantive and meaningful ways? Ocean science is now available for public engagement, bringing in data visualization, technology, and the arts. The tools are in place for experts from all walks of life to convey the story

of the ocean, weaving key messages in unexpected and new ways into our everyday culture. We must expand the reach beyond those connected to the ocean through geography, sport, or career to connect our cultures more deeply to the ocean.

Creating various engagement points and tactics will help to reach diverse and inclusive audiences as every community is different and should be considered. In light of this, we argue that the key to transformation is targeting established industries outside of the community by providing successful examples, identifying what is missing, and making suggestions for a way forward. This paper will take prior recommendations on how to inspire the public and put them into an actionable framework, at first engaging five different industries:



Each sector plays a critical role in defining our diverse cultures and shaping human behaviour. We encourage readers to explore each section individually or read in its entirety, and to share widely with those who have not yet engaged with

the ocean. Our hope is that we can familiarize the public with the ocean – not just making them aware of its plight but engaging them with innovative and inspiring solutions.





The Arts

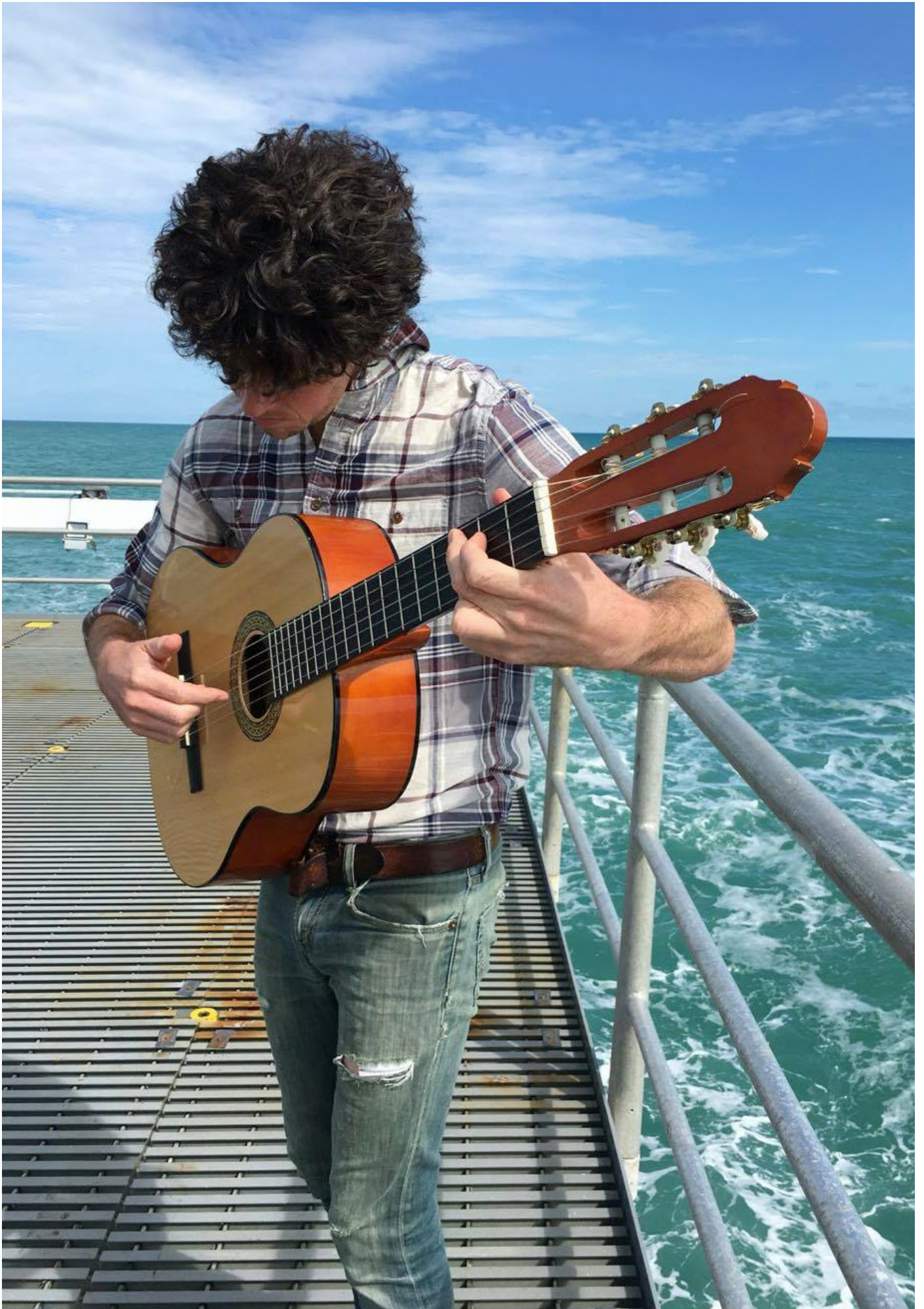
The arts offer a powerful voice in the past, present, and future interpretation of the ocean. They provide a chance to bring forth issues of concern, inspire curiosity, and generate discussion and empathy in a digestible, unassuming way. The arts can be used as an important medium to inspire change in thinking or behavior, by translating ideas and experiences using emotion and connection.

Representation of the ocean is present through much of art history. Paintings illustrate scary sea monsters, or ships of early exploration like Turner's *Fisherman at Sea* painting (1796), demonstrating the historical and social impact of art and, in this case, 'seascape'. They offer a glimpse into the early perceptions of the sea as a vast and scary place, a notion that unfortunately still prevails for many. Art can shift this representation to illustrate the dependence and need for the ocean we now know to be true.



J. M. W. Turner, Public domain, via Wikimedia Commons

The arts play an essential role in ocean storytelling and communication, offering a democratic approach. The arts that historically helped create a popular fear of the ocean, or thalassophobia, can now reframe the aesthetic and ask us to think differently. Anyone can create it, and by moving from passive observation to active environmentalism, many are using the arts to put forth solutions.



Ocean Rising



WHAT ARE GREAT EXAMPLES?

UNDERWATER MUSEUMS

Underwater attractions for scuba divers have grown in popularity, with many ocean museums and artificial reefs drawing interest from visitors all over the world. [Paolo Fanciulli](#), an Italian fisherman, commissioned artists to make huge marble sculptures to put underwater to stop trawler fishermen. The site now attracts many divers, creating a new spot of interest for tourists and locals. Paulo is not the only one.



musamexico.org/snorkel/snorkel-at-the-gallery-of-punta-nizuc/

Jason Decaires Taylor gave new meaning to using art as a tool for conservation through his underwater museum, [MUSA](#), in Cancun, Mexico, which houses over 500 sculptures made from concrete and rebar.

He [partnered](#) with Mexico's Environment and Natural Resources secretariat to repair damaged coral reefs using the sculptures as artificial habitat for sea life regrowth. As a result of one of his other exhibits, located in the Canary Islands, basking sharks have now returned to that small corner of the Atlantic.

“When we think of museums, we think of places of precious objects of conservation, of keeping things that are important to us. And I wanted to relay that same sentiment to the underwater world where it’s actually a privilege to go underwater,” said Jason Decaires Taylor in a recent *Catch Our Drift* podcast interview. “I try to use art to make people aware of what’s there and have a stronger connection to the ocean.” Jason’s works are considered one of the 25 Wonders of the World by National Geographic.

Other examples of underwater museums that provide a platform of engagement are the 36 exhibits in Herod’s Harbor in the port of Caesarea, in Israel, the “Alley of Leaders” that lies in the Black Sea off Cape Tarkhankut in Crimea, and Shipwreck Trail in the Florida Keys.

AT-SEA ARTIST RESIDENCIES

Recognizing the importance of communicating about the ocean through art, several sea-going organizations have begun to offer at-sea residencies on shipping containers, historic houseboats, and research vessels. The nonprofit [Schmidt Ocean Institute](#) has notably positioned itself by providing collaborations between artists and some of the world's leading marine scientists, using their research vessel Falkor as a platform of connection and interdisciplinary reach. The program has hosted more than 36 artists from various arts disciplines, lending artistic exploration to marine science.

Another group offering at-sea residencies is [TBA-21 Academy](#), a contemporary art organization and nonprofit that focuses on fostering a deeper relationship to the ocean through the lens of art. The Academy acts as an incubator for a collective of research and artistic productions, exhibited in their Ocean Space in the Church of San Lorenzo, Venice – a center for catalyzing ocean literacy, research, and advocacy through the arts. Residencies in the Polar Regions have also been an important source of inspiration for artists focusing on the changing climate in Antarctica and the Arctic's cold waters.

“I think in this moment everyone is outside of their comfort zones and that is really where the exciting moments happen,” says Markus Reymann, Director of TBA-21 Academy as he recognizes the importance of artists working outside their studios and with ocean scientists. “By pulling scientists into the conversation with artists and framing it as an artistic programme, you allow the scientists to think poetically, and more freely than they would be with other scientists.”

By pulling scientists into the conversation with artists, you allow the scientists to think poetically.



UPCYCLED OCEAN ART

Many artists have taken to marine debris – the ghost nets and plastic floating in the ocean and waterways – to create art with a political and environmental message, such as art activist [Liina Klaus](#) who collected 5,000 flip-flop soles from Bali’s west-coast beaches for an installation, Australian artist [Jessica Leitmanis](#) who uses marine

debris rope to create intricate weavings that tackle the issue of overfishing, or American artist [Cindy Pease Roe](#) who creates life-sized sculptures from 100 percent marine debris. These artists are just a few of the many who provide connections to the plastic pollution crisis by turning ocean trash into art, highlighting the growing issue.

OCEAN MUSIC

Dick Dale’s iconic song [Pipeline](#) immediately transports you to the ocean and big wave surfing, with the distinctive sounds of surf rock guitar. From 1970s surf punk to Jack Johnson’s mellow acoustic of the 2000s, and the resurgence of sea shanties in 2021, music can bring unity and connection to the ocean. [#ShantyTok](#) spread during the pandemic and brought individuals together during a very isolating time.

The Beatles brought the ocean to the masses with [Yellow Submarine](#), and Jack Johnson’s [Only the Ocean](#) introduced a new generation to the

sea through music. Younger audiences learned about animals of the reef with Pinkfong’s [Baby Shark](#) craze that reached almost every preschool classroom. [Cosmo Sheldrake](#), an ocean ecologist and musician created soundscapes of the ocean merging entertainment and science for the masses, and making people think about ocean depths. And journalist Ian Urbina recently created music from journalism with his [Outlaw Ocean Music Project](#) to reach his 17-year-old son who wasn’t interested in news stories but did care about music. The language and ocean references found in songs can play into the cultural importance of the ocean in our history.





WHAT ARE MISSED OPPORTUNITIES?

As powerful as the arts can be for ocean awareness, its focus has been minimal. This is a missed opportunity to challenge perceptions and increase connection to the ocean's role in our lives. Artist residencies could be increased beyond at-sea vessels, by including ocean science labs and universities. Expansion with artistic mediums can grow past figurative forms via contemporary ballets, operas, and light shows that can educate about the ocean by conveying important informational messages that last beyond the performance.

Pink Fong immediately jumped to merchandising with the Baby Shark craze, but think about how much impact the ocean community could have had in making connections to shark conservation or developing conversations with children and their families about the ocean that led to further educational messaging. The children's music group, The Banana Slug String Band, does this in their [Only One Ocean](#) album.

There are countless popular children's books series, which could be translated to musicals and shows. Two examples are [The Rainbow Fish](#), which was adapted into a children's animated television series, and [The Pout Pout Fish](#) that has recently been transformed to a musical [theater production](#) with puppets. When ocean-based programming for children becomes widespread, it will inherently inspire a passion and interest for the ocean and become a recognizable backdrop in both children's and their family's lives. The question to ask is how can we bring the ocean to the screens of our events, canvases, and conversations?

WHAT IS THE WAY FORWARD?

Art collectives can help bring together diverse backgrounds and incorporate technology to create immersive experiences. [Superflex](#), the Danish art collective, is an excellent example, where they say “the best idea might come from a fish”. Using artificial intelligence and virtual reality to create new space and awareness of our ocean may help broaden empathy and action.

Artists can also serve as role models for the ocean as demonstrated by [Jack Steadman](#), frontman of the band Bombay Bicycle Club. Jack refused to fly back to Europe after a tour and instead wrote an entire album whilst traveling home on a container ship. Other groups like the non-profit music collective [Julie's Bicycle](#) (UK) and [Reverb](#) (US) bring artists together to speak about the ocean and their reduction of single use plastics. These artists' collectives have influence over impressionable audiences and can use their platform to make caring about the ocean mainstream. Additionally, as important as it is to have artists incorporating the ocean into their work, we need spaces for them to work and display, as well as investors to fund them, to really maximize the power of art for social change.

Superflex, the Danish art collective, is an excellent example, where they say “the best idea might come from a fish”.



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Yellow Submarine - https://www.youtube.com/watch?v=m2uTFF_3MaA

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Reverb - <https://reverb.org/>



Broadcast Media

Consumption of traditional broadcast outlets such as film, television, and radio has decreased with reliance on digital sources; however, consumers around the world still spend an average of 7.5 [hours per day with media](#) (Watson, 2020). Broadcast media as a source of ocean news and awareness is critical, but the narrative has not changed much over the last thirty years. The ocean is typically portrayed with a story of doom and gloom or as a place of historical adventures; what is missing is a consistent beat of the bigger, inspiring picture. We see this in the occasional inspirational documentary, such as *My Octopus Teacher*, which clearly hit a chord with the general public and recently won an Oscar. Many ocean advocates, inspired by Jacques Cousteau's aquatic adventures, have built up a lifetime of awareness of the problems in the ocean, and it is now time to weave in a new and more diverse narrative. We need to reach those who are not interested in the ocean, by bringing in public figures who do not normally talk about the ocean, but can now do so in a positive reframing.

How can we take the stereotypes out of film and television and develop more relatable stories, creating a full spectrum of voices? Part of this lack of originality is historical. Ocean scenes are hard to film and expensive – which is why you mostly see fictional undersea stories looking through a porthole. However, we have moved past this now, and technology will allow for expansive creativity and visualization without filming at sea, so filming challenges are no longer an excuse.





WHAT ARE GREAT EXAMPLES?

IMAGINATION IN ANIMATION

Movies and television can familiarize viewers with animals and environments that they highlight and have a great influence on their audience's desire to become more acquainted based on how they are portrayed (Militz & Foale, 2017). Three of Disney's top-grossing movies have been ocean-centric plots that have evidenced this introduction with *Moana* (2016) at \$637 million in box office sales worldwide, *Finding Nemo* (2003) at \$940 million, and its sequel *Finding Dory* (2016) at \$1.03 billion (Sim, 2020). In particular, the *Finding Nemo* franchise created a whole generation of children interested in the ocean, with the ability to identify clownfish by name. A massive boom in aquarium trade followed the initial film, but the problem was that it did not

create links on how children could help conserve or learn more about the oceans (Militz & Foale, 2017). In fact, there was much controversy over the demand for aquarium trade fish following the initial film (Andrews, 2016). Learning from the 2013 release, Disney expended more of a significant effort with *Finding Dory* in 2016 raising more awareness about the aquarium trade, providing related lesson plans and educational content around ocean ecosystems and caring for the ocean. What these movies evidence, though, is the impact they can have in making the public care about the ocean. The link between caring and action from viewers is what is now needed.



DOCUMENTARIES WITH IMPACT

A similar argument exists for documentaries focused on the ocean. The popularity of at-home streaming has completely transformed the reach of small-budget productions, amplifying the audience by millions. Movie studios are now releasing films direct to streaming on-demand services and bypassing traditional theaters altogether (Morgan, 2019). Netflix subscribers have grown [10% a year](#), and the streaming service now has an estimated 208 million subscribers worldwide (Statistica 2021).

This capacity to influence millions of viewers has allowed for small production houses and new series to become famous overnight, which some experts call [The Netflix Effect](#). It has catapulted many ocean documentaries over the past few years, bringing familiarity and ocean issues to the public. Films like [My Octopus Teacher](#) (2020) and [Chasing Coral](#) (2017) are hugely successful Netflix documentaries that share personal stories to help people relate and care about what's living in our ocean.

BRINGING THE OCEAN TO PEOPLE'S LIVING ROOMS

The spectacular imagery captured with underwater film technology has brought a new level of public interest and inspiration to the ocean. BBC's Blue Planet series most successfully did this. The episodes created a careful balance between inspiring people with beautiful high-resolution imagery and alarming them with shocking visual evidence of ocean plastics impacting environments and animals. Compared to the majority of previous natural history programming produced by the BBC which largely focused on the wonder of the natural world, Blue Planet II widened the lens to include the oceans' plight and has done more than most in alerting the world to the plastics crisis and motivated change with good storytelling. In a 2018 survey, nearly 88 percent of people in the United Kingdom who saw the BBC's Blue Planet II episode about the effect of plastics changed their behavior in some way (Waitrose and Partners, 2018).

Other organizations outside the film industry have also created remote and interactive experiences,



BBC Blue Planet

allowing the public to watch live robotic dives to the seafloor. Nekton pioneered live submersible based broadcasting and partnered with Associated Press and Sky News in 2019 to broadcast the first-ever live submersible newscasts, Deep Ocean Live, that was carried in 140 nations (Moore, 2019). More ocean exploration organizations are using their footage for public production, like OceanX, who recently announced plans to turn their work into a new National Geographic/BBC ocean series with James Cameron (Clarke, 2019).

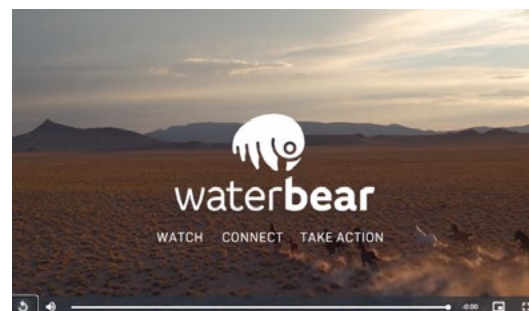


WHAT ARE MISSED OPPORTUNITIES?

Ocean films and documentaries tend to amplify the problems we face and do little to promote solutions or actions that can help address the issues. Additionally, fictional stories about the ocean continue to play up old stereotypes of the ocean as vast and dangerous (e.g.) [Jaws](#), [Open Water](#), [Adrift](#), [The Meg](#), etc. doing little to create a new narrative. With one notable exception: *Jaws*. The detrimental effect this had on sharks resulted in an entire week of programming devoted to sharks, which is now the [longest-running programming](#) in U.S. cable TV history – Shark Week. During this week, educational material is shared, anti-finning PSA are aired, and funds are raised for shark research and preservation.

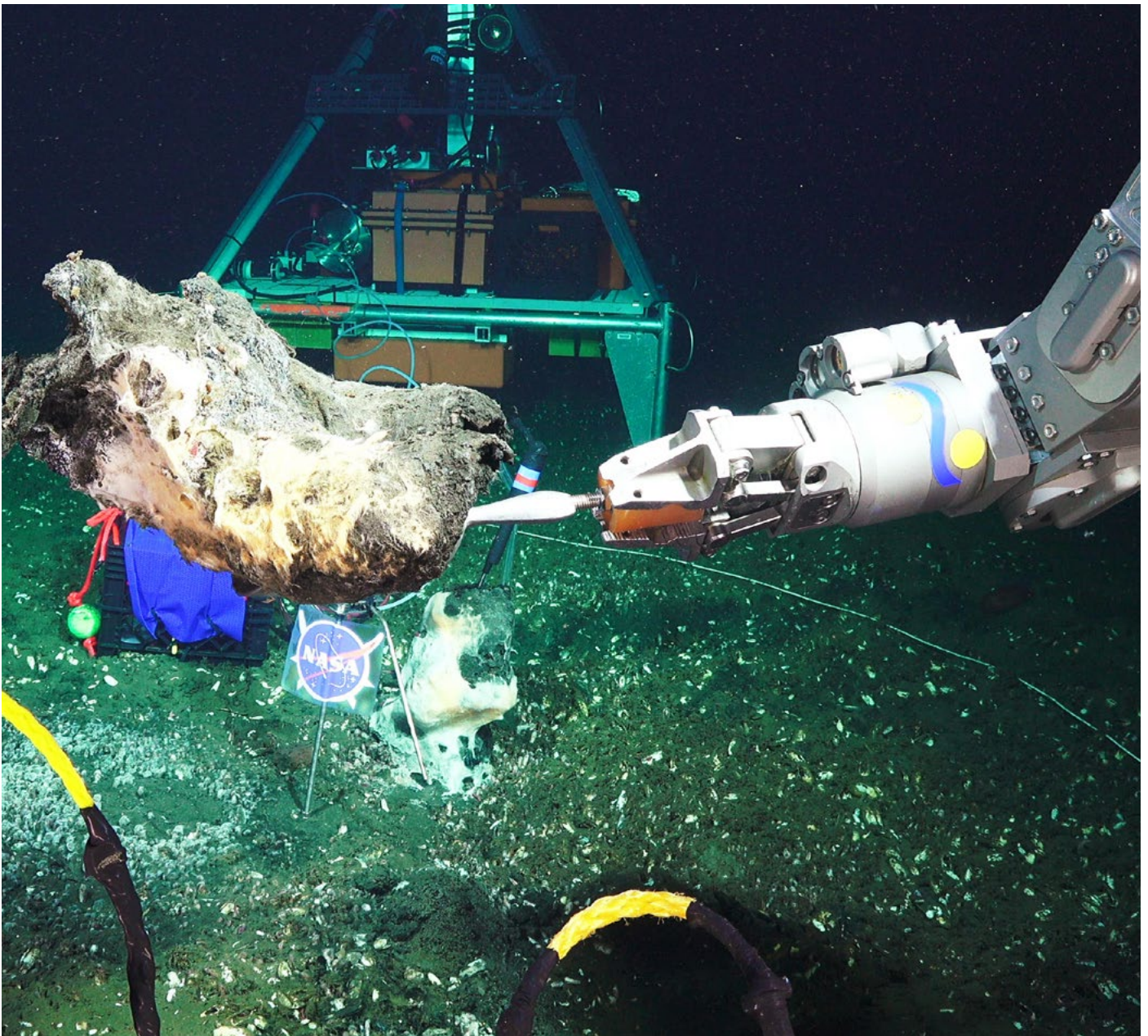
Generally, mainstream films have not done anything to shift public perception of the ocean in any dramatic way – especially compared to space movies (e.g.) [Apollo 11](#), [Martian](#), [Gravity](#), where human stories of exceptionalism and heroism inspire engagement. When we do see inspiration, edge-cutting ocean themes and futuristic ocean technologies, it is typically in the context of space set on other planets. This reinforces the common perception that we know everything about Planet Earth. The real hook should be that we don't know everything, not even close. The stories of journeys into the unknown, resulting in pioneering discovery – whether of geographic or scientific exploration – have and continue to inspire audiences globally. We need more of them about the ocean, the last great geographic frontier on our planet.

When ocean documentaries become popular, they can often be polarizing, as demonstrated by the recent [Seaspiracy](#) (2021) on Netflix, with accusations it made false claims (Allen, 2021) and racially stereotyped ethnicities from a western perspective. Many in the ocean sciences and industries felt the film contained misleading information, incorrect statistics, and out-of-context interviews (McVeigh, 2021). The themes covered in the film are important, and if the messaging was less accusatory and brought in accurate facts, it could have been a potent educational tool. What is promising is the expanded reach that these once niche films can have with the broader public through streaming platforms. [Waterbear](#) is a nascent example of this potential, a new streaming network devoted to nature documentaries. However, we need to ensure that these types of films are not tucked away in niche platforms, but brought to the mainstream.



www.waterbear.com

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WHAT IS THE WAY FORWARD?

Technology continues to accelerate new ways of telling stories about the ocean, allowing for 8K filming from the deep sea and surround sound to create an immersive experience close to submerging yourself in the ocean. New documentaries in production will soon reveal the capabilities and impact of these developments.

As streaming content providers like Apple, Netflix, and Amazon increase their production and host a whole new platform for content, there are more opportunities than ever to grow ocean subject matter for the public. From meaningful kids programming that educates and excites the ocean (e.g.) [Splash and Bubbles](#), [Octonauts](#), [The Deep](#); to stories of human endeavor that inspire, like *My Octopus Teacher*.

Fiction can change the narrative and create new interest in relevant and topical issues. For example, the popular science fiction novel, [The Swarm](#), is in production for a new film series with updates to provide commentary on the issue of seabed mining (Vivarelli, 2020). Netflix is in production on a large four-year ocean production.

Setting aside narrative and documentary works, another genre not often utilized in ocean communication is comedy. Typically, marine scientists are portrayed in both nonfiction and fiction series as very serious and do not appeal to a lighter side. The ocean could greatly benefit from a comedic element either through late-night talk show hosts or through funny spokespeople. When ocean science has taken itself more lightly it has been met with wide-spread appeal, as demonstrated by the naming of the “hoff crab” because of its bare chest like the U.S. [Baywatch](#) actor David Hasselhoff (BBC, 2015), the popular Wes Anderson mockumentary, [The Life Aquatic](#), about ocean scientists on a submarine or the partnership between the US radio channel Sirius XM and Nekton to produce the [deepest live radio comedy show](#).



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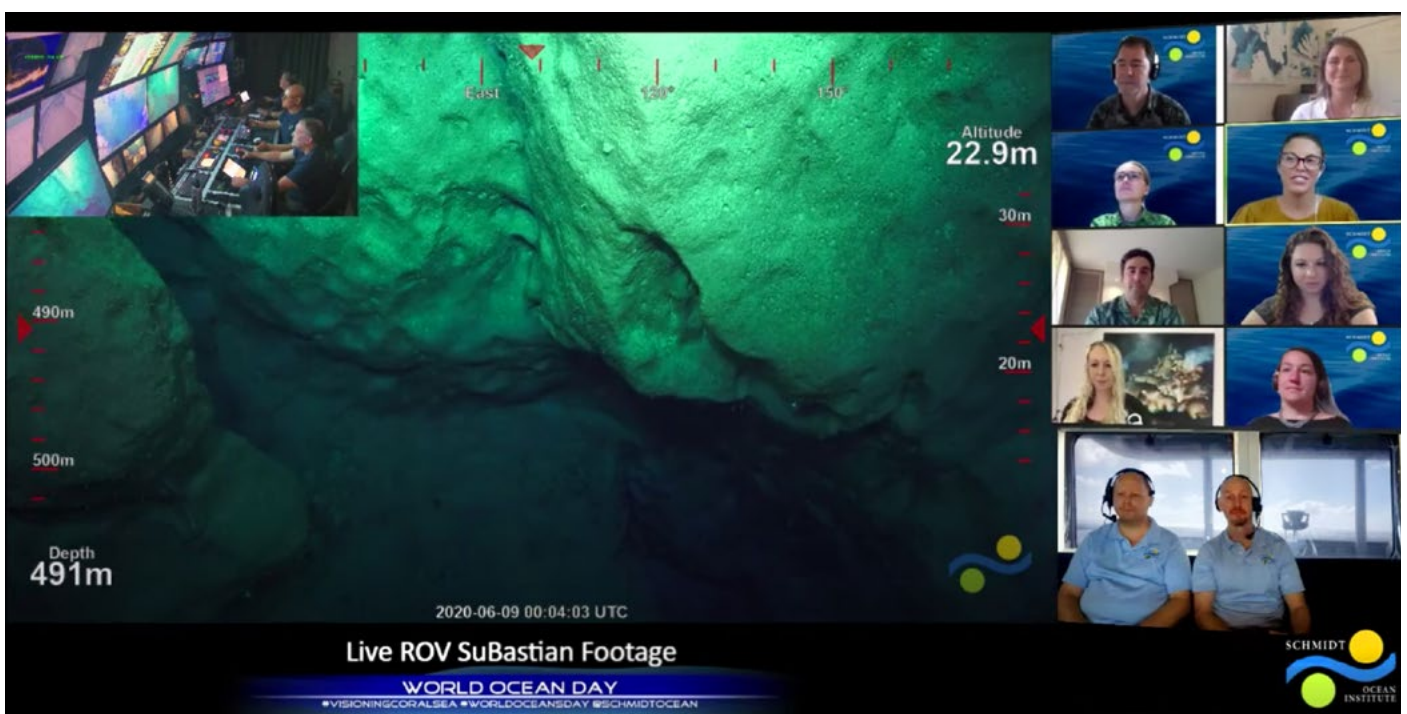
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Social Media

Online platforms for social interaction have had a significant impact on the dissemination of information to a large number of people globally. The generations who have grown up with it have shifted away from terrestrial media and are reliant on social sites for content generation, including news, podcasts, and entertainment.

Social platforms create opportunities to develop societal connections to the ocean, but it can be difficult to get a message across the plethora of information.



Online celebration of World Oceans Day 2020





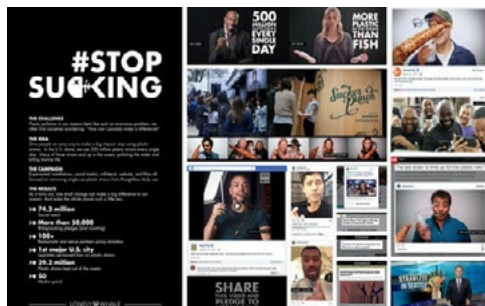
WHAT ARE GREAT EXAMPLES?

TAKE ACTION CAMPAIGNS

Movements with wide-spread appeal that provide an action for the public to engage with are important. The plastic ban campaigns such as #OneLess (2016), [#banplasticsKE](#) (2015), and #StopSucking (2017) provides strong examples. The #banplasticsKE for example, was created by one activist, James Wakibia, who inspired Kenya to ban single-use plastic bags.

Another plastic campaign that illustrates the democratic power of social media is [The Alternative](#) Facebook group. Created by Aditya, a 16 year old boy in India to discuss the effects of plastic and how its consumption could be reduced. Like the #StopSucking challenge, Aditya aimed to eliminate plastic drinking straws, and managed to keep 26 million straws and two million other plastic items from getting dumped in landfills. In just two years, he convinced over 150 entities including golf clubs, hotels and cinemas to go plastic-free.

The [#StopSucking](#) campaign took rise in 2017 from the Lonely Whale Foundation, and challenged people to #StopSucking and cease use of single-use plastic straws. After the campaign launched, it quickly went viral with celebrity endorsements from Adrian Grenier (the co-founder), Ellen Pompeo, Russell Wilson, and Emmanuelle Chiriqui. The campaign led to several plastic straw bans in many U.S. cities and challenged large companies like Starbucks. The [#ThankYouOcean](#) campaign, which received the Coastal America Award in 2008 is an additional online movement that went viral. The California-based campaign united voices to promote everyday actions to protect the ocean through a PSA, ad campaign, a toolkit for communicators, a website, and a podcast series. The participatory postings of people thanking the ocean brought a united appreciation. A user-generated social media competition about marine litter grew global awareness about waterway pollution with similar success under the UN Environment [#CleanSeasPhoto](#) campaign.



strawlessocean.org/stopsucking

OCEAN PODCASTS

According to Statista (2020), there are 700,000 active podcasts and 29 million episodes each week in the United States, and over 155 million people listening. This is a growing market globally that offers a way to focus on a variety of ocean topics, presenting the problem and solutions as well. As of April 2021, more than 40 ocean-themed podcasts exist, ranging from ocean science to careers in marine biology, to diving and surf stories.

One podcast of note is Nekton's [Catch Our Drift](#) with Dr. Helen Scales and Oliver Steeds. This podcast is different as it engages both ocean scientists and conservationists with those outside the ocean space, including actors, writers, musicians, and athletes. This combination and interest-based approach allows for a broader audience while still imparting knowledge, analysis, and opinion on ocean topics. "We aim to reach as wide an audience as possible by offering up a mix of inspiring, exciting, and entertaining stories that show how the oceans seep into so many aspects of our lives," says podcast host Helen Scales. "A key approach we've taken has been to interview voices from outside the ocean sphere, from the TV and music industries, chefs, artists and so on, with the hope of engaging listeners who don't necessarily identify themselves as 'sea people'".



catchourdrift.org/

Two other notable examples are the [World Ocean Radio](#), a weekly series of five minute audio essays that cover a wide range of ocean issues with host Peter Neill, and the World Surf League's PURE podcast [One Ocean](#) with Reece Pacheco, who speaks with activists, artists, athletes, and academics about ocean conservation, sustainability, and how to take action to save our seas.

“A key approach we’ve taken has been to interview voices from outside the ocean sphere, from the TV and music industries, chefs, artists and so on, with the hope of engaging listeners who don’t necessarily identify themselves as ‘sea people’”.



UNDERGROUND OCEAN

Instagram, TikTok, YouTube, and Vine have grown influencers, topics, and sub-cultures about the ocean that have blossomed into the mainstream, especially among youth. The virtual [Seapunk](#) genre is the most notable example. More recently, a large cult following of [all things mermaids](#) has created a community of those who dress in tails and promote the ocean.

At age 13, Riley Hathaway from New Zealand began [Young Ocean Explorers](#) with her father. Their educational platform has expanded views through social media, gathering more than 1.6 million content views. How do we continue to make ocean trends from these new platforms and use their influential power to make the ocean mainstream?

WHAT ARE MISSED OPPORTUNITIES?

In 2018, Instagram had more than one billion users, and that number has continued to rise. Sponsored posts exceeded 6.1 million in 2020, and with that comes a growing influencer market worth more than \$2.3 billion (MediaKix, 2020). Instagram offers one of the most far-reaching channels for public influence, but could be utilized for more than just commercial marketing. Some of the most prominent ocean influencers include divers like [Ocean Ramsey](#) (1.3m followers), surfers like [Kelly Slater](#) (2.7m followers) and [Bethany Hamilton](#) (2.1m followers), and photographers like [Brian Skerry](#) (930 k followers) and [Thomas Peschak](#) (1.2 m followers). However, if you compare this to other influencer categories, some of the ocean's "best" don't even stack up. According to Stastica (2020) the top Instagram influencer themes include beauty and fashion (19.2%), fitness and yoga (8.6%) and music (7.3%). At the bottom of the list, technology and science (0.6%), within science, the environment and ocean are not even listed.

How can we permeate these top categories with ocean awareness, and connect otherwise disparate themes? We might infiltrate the popular beauty and fashion influencers with more ocean connections using trends like [ocean hair color](#) and [ocean wave hair](#), or work with influencers like model and actress [Alexis Ren](#) (14.1 m followers) who uses her platform to highlight ocean problems. While most follow her for fashion tips, she educates along the way and has set up a startup, [Future Prosperity](#), selling aspirational lifestyle goods while recovering a pound of ocean plastic for every product purchased. Let us find more Alexis Ren's to make ocean health a mainstream topic across all influencer categories.



Ocean wave hair

WHAT IS THE WAY FORWARD?

The ocean is certainly discussed across social platforms, but comparatively is not a topic on most people's radar. As part of the planetary system, the ocean should be included in the wider discussion across all topics from fashion to sports. At a time where climate concerns are rising into bipartisan political discussion and mainstream public consciousness, it is critical to ensure that the ocean is positioned within this discussion. To usher in these conversations it will require the help of those who can reach many. There is a lot out there, and people have busy lives, so ocean issues must be made relevant to them, wherever they live.

Many ocean vessels offer live streams of dives showcasing never before deep sea imagery and unique ecosystems. On average, these are viewed globally by thousands but are significantly underutilized. Imagine if Sir David Attenborough, Oprah Winfrey or China's Lu Yu hosted and narrated a live ROV dive? The opportunity to view and learn from these exciting, discovery-filled expeditions should be mass media events, similar to NASA, where there is excitement across broad swaths of the population instead of a niche segment. Let's start to get creative where everyone is connecting to the ocean in new and unexpected ways – where is the next sea shanty trend or ocean meme?



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Sports & Gaming

Sports and gaming are two areas where ocean advocacy and awareness campaigns can reach a large population of people, while two separate industries, sports and games traditionally appeal to people's sense of achievement and triumph.

Opportunities to educate about the ocean have grown over the last ten years with the advancement of sustainability in sports, and its influence on pro-environmental behaviors. Sports sustainability has even elevated to its own sub-discipline of sport management called sport ecology (McCullough, Orr & Kellison, 2020). Reaching masses of people at one time is not the only focus; consideration for the environmental impact of spectatorship is evaluated including how sports organizations can be conduits of sustainability messaging to promote

pro-environmental behaviors among fans. The sporting industry's commitment to reducing its impact is becoming increasingly important; some sports fans even feel a deeper connection to their team when there is an apparent concern for the natural environment. However, communicating about the ocean can be a challenge when the science is complicated, and the scope of the problem is perceived as overwhelming. Can we use a fan's attachment with a team, city, stadium, community, or athlete to deliver a message about the ocean or connect a behavior towards ocean conservation? An easy place to start in the USA for example could be with teams who already carry an ocean-related name - Miami Dolphins, Tampa Bay Rays, Pittsburgh Penguins to name a few.





WHAT ARE GREAT EXAMPLES?

SUSTAINABILITY IN SAILING

There are many instances where people already use the ocean for sports and recreation including sailing, surfing, scuba diving, and fishing – this is a great place to look for examples of broad audience engagement. In particular, sailing has taken on sustainability through [The Ocean Race](#) and the work of [11th Hour Racing](#). Together, they created the ‘Racing with Purpose’ campaign, aiming to help restore ocean health and create a platform to engage partners looking to contribute to sustainability through science, restoration, and

education. 11th Hour Racing has taken the lead on this. They establish strategic partnerships with coastal communities where sailing takes place, inspiring local solutions that can address global ocean problems and building local stewards for the ocean. This model also uses global events to spotlight community grant projects throughout the world. In the past 10 years, 11th Hour Racing has sponsored 37 competitive seasons in 17 countries around the world, generating 12.2 billion media impressions.



SURFING FOR GOOD

Surfing is intricately connected to the ocean; however, in the past few years there have been excellent initiatives to further this connection through sustainability campaigns and citizen science. WSL Pure, the World Surf League's nonprofit arm, has put out a [We Are One Ocean](#) campaign that includes a petition to advocate for 30 percent protection of the ocean, part of a larger global UN campaign, and created a video series to accompany the program. WSL Pure has selected influential ocean health advocates to be the face of their campaign, including [Clifford Kapon](#), a Hawaiian professional surfer with a chemistry Ph.D. that started the Surfer Biome Project (Motion, 2020) and Dr. [Ayana Elizabeth Johnson](#), who is focused on climate solutions that involve the ocean.

The [Smartfin Project](#), born out of the [Wendy Schmidt Ocean Health XPRIZE](#), was one of the first citizen science projects to target the surfing community in 2014, bringing together the surfing and research communities to fill a gap in oceanographic data. The project, now collecting water temperature data, developed data-collecting surfboard fins to transfer useful nearshore data to the cloud for oceanographic scientists to use in their research. Not only did it create a way for the surfing community to take action, but it provided a platform for discussion of ocean health and climate change, bringing together participants both on and offline.



smartfin.org

Another shining example of sustainability development in the sport of surfing is the [ECOBOARD Project](#), a program by Sustainable Surf, as an independent “eco-label” for surfboards focused on reducing carbon footprints, increasing the use of recycled materials, and reducing toxicity within the surfboard manufacturing process. Most leading surf brands have now adopted the label, and the group works to educate and engage those in the surf community about the environmental impacts of the surfboard making process.



EXTREME E RACING

There are an increasing number of examples of how sports players and teams can ensure sponsorship with companies that do not cause harm to our planet, and use sustainability or the ocean itself in “brand deals”. Extreme E is an excellent example of motorsport highlighting the plight of the ocean. World Champion F1 racers like Nico Rosbert and Lewis Hamilton have raced electric cars alongside villages impacted by rising sea levels and waters that are plastic soups. Legacy programmes at each of Extreme E’s remote venues ensure that locations are left improved by hosting the event.

“Extreme E is the first sport that has had sustainability at its core. It’s purpose is racing and doing good for our planet, for our environment and for us all,” stated former F1 world champion and Extreme E owner Nico Rosberg. “As a team owner my vision is that global sports teams around the world put sustainability as their core purpose. Sports teams have such power. They are emotionally connected to millions of fans. They have a unique opportunity to convey messages”.

OCEAN GAMING

A report published by [DFC Intelligence](#) identified nearly 3.1 billion video game consumers in 2020 – about 40 percent of the global population (Williams, 2021). If ocean topics could reach even a small portion of this group, we could touch a large segment of the global population. One of the largest gaming franchises in the world, [Bioshock](#), is actually set underwater, however the ocean community remains largely unaware of this and the possibilities that this may offer. Conversely, there is awareness of a limited number of ocean-themed games that engage users in ocean exploration, such as Tigertron’s [Jupiter and Mars](#), Unknown World’s [Subnautica](#), and E-Line Media’s [Beyond Blue](#).

Beyond Blue launched in 2020 and incorporates real-life ocean footage into a future-set scenario where the player explores the ocean as a deep-sea explorer and scientist. The game was inspired by the BBC Blue Planet series, and used ocean scientists to help in its formation. What makes the game stand out is the well-developed narrative and ways to interact in a more meaningful way. The game’s website suggests how to get involved with ocean work and is a shining example of incorporating the ocean into the gaming world. [Koral](#) and [Abzu](#) are other games that do a worthy job of allowing players to explore the ocean depths in a positive way, solving puzzles to revive coral reefs, and interacting with many underwater species. How do we expand games like Beyond Blue that bring realism and activism to the gaming world, developing new narratives for underwater scenes beyond pirates, treasure, and sea monsters?

WHAT ARE MISSED OPPORTUNITIES?

Increasing connection to the ocean involves broadening messaging about the ocean to the masses and not just focusing on niche markets. Mainstream sports with mass audiences need to do more to include oceans reaching out to the football / soccer or rugby fans, hockey enthusiasts, and baseball fanatics.

In the UK, Sky Plc, the TV rights holder of the Premier League, the most powerful football league in the world, took their corporate campaign - Ocean Rescue - to the clubs, stadiums, fans and broadcasts. Joining forces, footballers kicked plastic bottles into nets during build, campaigns were established to remove single use plastics, and captive audiences, previously unaware of ocean plastics, were activated as new campaigners.

“Football has a unique ability to reach billions across the world and I’m delighted that the Premier League and its clubs are getting involved to further build on our Ocean Rescue campaign. Today we’re calling on football fans to make a simple change and join us to help stop our oceans drowning in plastic.” explained Head of Sky Sports, Barney Francis at the [launch](#).

Corporate social responsibility has grown in importance, and sports is a place where the ocean can be incorporated. Imagine the impact of an ocean advocacy campaign during the Super Bowl, or if individual sports professionals came together as advocates for the United Nations Decade of Ocean Sciences for Sustainable Development. How do we amplify ocean activities more in the public consciousness?



WHAT IS THE WAY FORWARD?

Sports and gaming both have large audiences that could be engaged in ocean health, but perhaps are not. The first step is to understand better what is most effective in communicating to these audiences about the ocean and how to distill the many issues of the ocean into manageable pieces of information that are simple yet convey urgency (McCullough, Orr & Kellison, 2020). The ocean community can expand its reach to growing ocean-based sports, as illustrated by both the sailing and surfing industry, or to the outdoor swimmers, a pastime that grew during the global pandemic (Cosslett, 2020). However, expanding past water-based sports and reaching those with no direct ocean contact is critical to growing awareness. Maybe the entry is through more detailed articles or recurring columns in sporting publications and outdoor magazines.

Another audience to engage more deeply is the gaming communities through conventions like [GenCon](#), a gathering focused on role playing and board games, with a small element of video. What if live ocean dives were streaming on Twitch, and viewers could watch ROV operators pick up samples in real time? A new way to engage gamers is with virtual reality, allowing participants to experience extreme ocean environments in a more personal setting. It may be a key tool to create empathy for fragile ocean habitats and inspire a new generation of ocean ambassadors.

Either way, the ocean community needs to rethink how it engages with audiences outside the usual participants, embracing new technologies to do so. Can artificial intelligence based programming for species identification be turned into a participatory game? For this to work, scientists could reach beyond their labs and begin working with gaming companies, as we saw with the Beyond Blue game.

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Business & Industry

The ocean and the issues surrounding it do not just belong to those who are directly connected. The blue economy is more than wind farming, fishing, and tourism; it reaches far beyond, to big corporations, the fashion, entertainment, and food industries. Global Web Index research has shown that conscious consumerism is now mainstream with almost 60% of consumers stating they would pay more for sustainable and eco-friendly products.

Many companies are shifting their business models to reduce waste, support ocean conservation programs, and educate consumers; but what else can we do to assist them so we can collectively see the impact of scale.







WHAT ARE GREAT EXAMPLES?

GREENING FASHION

The fashion industry generates more than \$2.5 trillion USD in global annual revenue and employs more than 300 million people (One Ocean, 2020). High fashion's trickle down to the mainstream makes it a great platform of influence for trend setting and bringing interest in the ocean. For example, the seapunk subculture entered the fashion and music industry in 2011, bringing mermaid fashion, blue hair, and dolphin icons into the mainstream.

Other examples seen are the adoption of seaweed into fashion as exemplified by Phillip Lim's 2020 carbon-neutral [seaweed sequence dress](#), Iris van Herpen's Sensory Seas collection that draws inspiration from marine ecology, and Bloom Foam's Ultra III Bloom [algae shoe](#). Fashion can forward activism, such as with the recycled bead bracelets from [4Ocean](#), and [Project Zero's](#) ocean-themed artwork to raise awareness about the ocean. The ocean even got noticed when [Pantone](#) made coral the color of the year in 2019.

Technology has allowed for new circular production lines and alternative materials such as [Sorona](#) – a plant-based fiber that lacks chemical processing, lessening impact to the ocean. Several large companies in the fashion world have led by example, and momentum is growing with pressure from consumers. Examples include [Patagonia](#) making hat brims from old fishing nets; [ASOS](#) training all of its designers to create a fully circular collection eliminating waste and increasing durability; [Nike](#) working with suppliers to measure microfibers in wastewater and explore mitigation options; and [H & M](#) creating a sustainability line ensuring that 50 percent of each piece is made from sustainable materials.

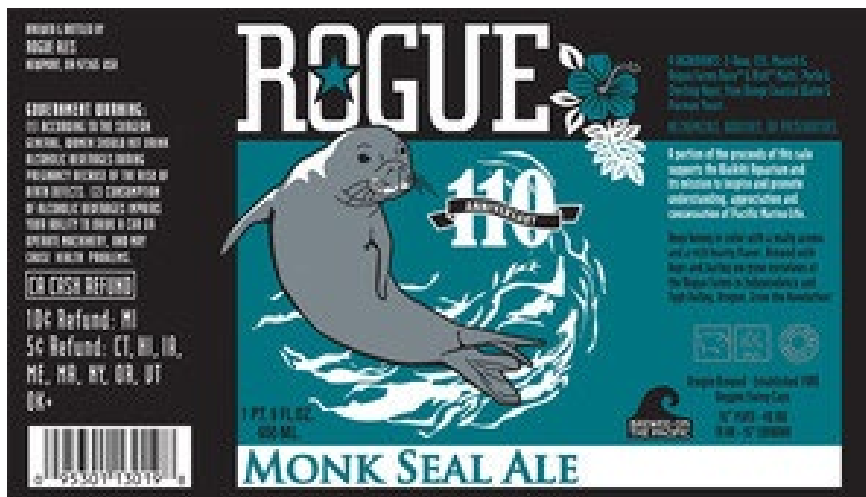


Patagonia hats

PROMISING PACKAGING AND ETHICAL BREWS

Numerous innovative products and packaging methods are eliminating waste and trying to reduce plastics in the ocean. [Bureo](#) has been one of the leaders in this movement creating new skateboards, sunglasses, hats for Patagonia, threads, and other goods from recycled pellets. [Packaging 2.0](#) is another organization that produces responsible packaging for the ocean by selling and marketing plastic wrapping and containers made from post-consumer recycled materials. In 2014, Packaging 2.0 sold more than 15 million packages made from over 1.5 million pounds of recycled plastic resin.

[Saltwater Brewery's](#) biodegradable 6-pack holder is another example of this trend, with compostable packaging and highlighting of sea life on their beer labels. Many craft breweries have joined the ocean trend, including Rouge, by highlighting endangered species on beers such as the [Monk Seal Ale](#) (which has since been discontinued). The [North Coast Brewing Company](#) aims to create sustainable beers, and produces an “ocean-friendly IPA” where the company donates a portion of proceeds to the Marine Mammal Fund.



untappd.com/b/rogue-ales-monk-seal-ale/626317/photos



ETHICAL EATING

Concern for the ocean is making its way into many restaurants, becoming a topic for engagement at high-end, trendy restaurants. One example is [UNDER](#), a partially-submerged restaurant in Norway that doubles as an underwater research lab. The goal of the restaurant is to bring awareness and curiosity about the ocean and marine science. Another example is Miya's Sushi in the United States, which only serves invasive species and is the world's first sustainable sushi restaurant. "It's about living and doing business in a way that's regenerative and restorative rather than disruptive to the environment," says Chef Bun Lai who owns the restaurant. "We know that shifting the human appetite towards invasive species is a tool that works in helping to control them because the human appetite over millennia has literally wiped out countless species."

Other trendy restaurants with ocean themes could adapt this idea, using their popularity as a platform for connection. [Sexy Fish](#) is a perfect example of a restaurant with a private "coral reef" room that contains some of the world's largest coral aquariums, but lacks any education with the connections it provides.

The grocery store is another area for ocean knowledge. [Monterey Bay Seafood Watch](#) is one program that has created more consumer awareness among restaurant and grocery store patrons. In 2011, [Whole Foods](#) was the first U.S. retailer to sell private label sustainable canned tuna, and in 2017, became the first to commit to selling only sustainable canned tuna across its entire private label and national brands.

The restaurant industry produces a large amount of waste, and consumers are increasingly patronizing eateries that are making efforts to reduce their waste. The Surfrider Foundation's [ocean-friendly restaurant](#) program now has 672 restaurants in the U.S., offering a framework for ocean-sustainable choices. Sustainable restaurants are becoming more accepted as they become common-place and as awareness towards global climate change grows.

"Shifting the human appetite towards invasive species is a tool that works in helping to control them because the human appetite over millennia has literally wiped out countless species."

WHAT ARE MISSED OPPORTUNITIES?

The issues are complex and multifaceted. Besides fashion's relevance in the global economy, the industry plays a fundamental role in social and cultural life. Many people wear NASA t-shirts bought in a broad range of places from high-street shops to Target. What is the ocean equivalent and how do we make "wearing" the ocean cool?

Fashion has demonstrated great activism, as illustrated by the anti-fur campaigns sparked by PETA. Unfortunately, a lot of the faux animal products in fashion are plastic-based. The popularity of vegan-friendly leather has taken off, so why not create ocean-friendly clothing or beauty products? Is the reduced use of plastic and ultimate elimination of it something that a marketing campaign can achieve? The fashion sector is one of the world's biggest manufacturing industries, and, at the same time, it is considered one of the most polluting industries in the world because of the greenhouse gases and chemical waste that is produced through its production (One Ocean, 2020; [Sustain Your Style](#)).

Greater sustainability needs to expand beyond the fashion industry, with re-evaluation of supply chains and packaging in all consumer products. If a giant food retailer agrees to use sustainable packaging it would have a huge impact. Plastic bag consumption dropped dramatically and is now frowned upon thanks to government backed campaigns - can we do the same for unnecessary packaging? Similarly, if the world's largest food suppliers only stocked Monterey Bay approved fish, then that would become the norm and people would be far more aware of the issues and impacts of industrial fishing. We need to bring the big players alongside rather than relying on smaller, more expensive food suppliers to do the right thing.



Sustainable fashion

WHAT IS THE WAY FORWARD?

Restaurants, packaging, and fashion are just three industries that are starting to consider their impact and create initial solutions to some of the most prominent waste issues, with the ocean in

mind. How can we encourage more not just from these areas of business, but all forms of commerce? How can businesses inspire the public?



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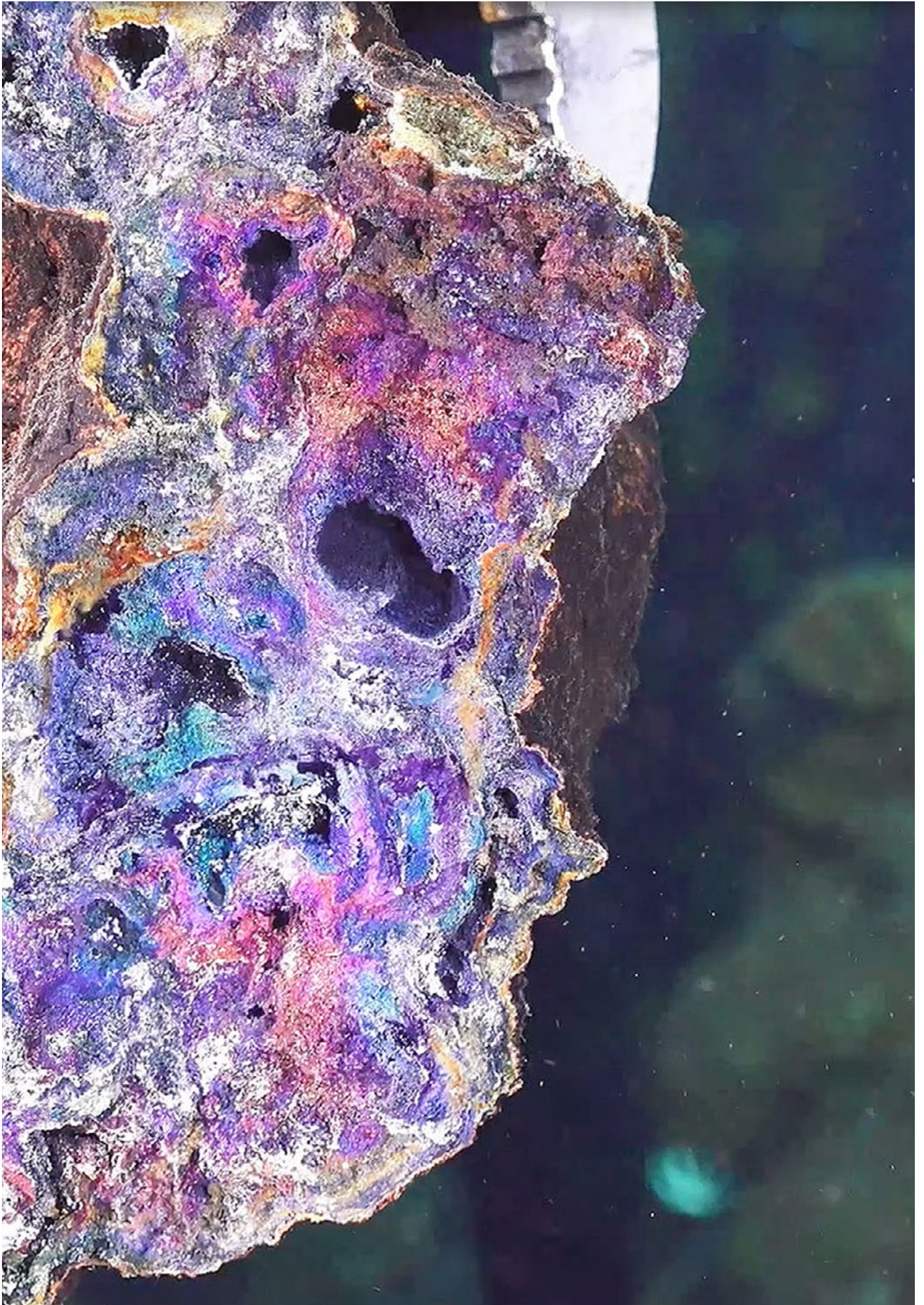
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Next Steps

The above-mentioned examples are just a few of the efforts that connect the public to the ocean. We need to engage with the cross-section of the public that is not connected to the ocean in any way, and explore those sectors of our popular culture that have a global reach. How do we make knowing our ocean a celebrated experience? Businesses, artists, sports people - all can help to inspire the public about the ocean, engage new audiences, and bring the ocean to topics of dinner table conversation.





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