



CREATIVITY IN CONSERVATION...

How do science and conservation organisations tell the story of their work in creative, engaging ways?

An International Specialised Skills Institute Fellowship.

KATE CRANNEY

Sponsored by The George Alexander Foundation

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i. Acknowledgements

The Fellow sincerely thanks the following individuals, and their organisations, who generously gave their time and energy to contribute their skills, knowledge and ideas to the Fellowship.

International Specialised Skills Institute (ISS Institute)

The ISS Institute exists to foster an aspirational, skilled and smart Australia by cultivating the mastery and knowledge of talented Australians through international research Fellowships.

The International Specialised Skills Institute (ISS Institute) is proud of its heritage. The organisation was founded over 25 years ago by Sir James Gobbo AC CVO QC, former Governor of Victoria, to encourage investment in the development of Australia's specialised skills. Its international Fellowship program supports a large number of Australians and international leaders across a broad cross-section of industries to undertake applied research that will benefit economic development through vocational training, industry innovation and advancement. To date, over 350 Australian and international Fellows have undertaken Fellowships facilitated through ISS Institute. The program encourages mutual and shared learning, leadership and communities of practice.

At the heart of the ISS Institute are our individual Fellows. Under the International Applied Research Fellowship Program, the Fellows travel overseas and upon their return, they are required to pass on what they have learnt by:

- » Preparing a detailed report for distribution to government departments, industry and educational institutions
- » Recommending improvements to accredited educational courses
- » Delivering training activities including workshops, conferences and forums.

The organisation plays a pivotal role in creating value and opportunity, encouraging new thinking and early adoption of ideas and practice. By working with others, ISS Institute invests in individuals who wish to create an aspirational, skilled and smart Australia through innovation, mastery and knowledge cultivation.

For further information on ISS Institute Fellows, refer to www.issinstitute.org.au

Fellowship Sponsor - The George Alexander Foundation

The Fellow would like to thank The George Alexander Foundation for providing funding support for the ISS Institute and for this Fellowship.

In 1972, George Alexander AM (1910 - 2008) set up an independent philanthropic foundation as a way of sharing his wealth and giving back to the community. Today, the main focus of The George Alexander Foundation is access to education for promising young people, particularly students with financial need and those from rural and remote areas.

The George Alexander Foundation (GAF) Scholarship Programs form the core of the foundation's work, operating in partnership with major tertiary institutions,

while our Fellowships and other Education grants provide a variety of other unique and challenging educational experiences. George Alexander believed in the notion of 'planting seeds and hoping they grow into pretty big trees'. The programs supported by the Foundation endeavour to support this ideal and as GAF students graduate and go on to contribute to the community, George's legacy and spirit lives on through their achievements.

George Alexander came to Australia as a child migrant, and went on to become a mechanic, an entrepreneur and a businessman and later, a generous philanthropist, who held that you do not own the possessions you have, 'you're just minding them'. This philosophy guided him to give during his lifetime and to hope that through his example, he might inspire others to do the same.

Supporters

The Fellow wishes to acknowledge the support of the following former colleagues who supported them to undertake the Fellowship.

Robyn James and Richard Gilmore (The Nature Conservancy)

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- » Thomas Dambo, sculptor

- » Mary Dixon, World Conservation Society
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- » Joe Lambert, StoryCenter
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- » Zach Lowe, Rare
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- » Irene Magafan, World Wildlife Fund
- » Julie Meredith, The Nature Conservancy
- » Gerald Miles, Rare
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- » Sarah Wade, World Wildlife Fund
- » Sarah Weber, The Nature Conservancy
- » Corinn Weiler, Rare
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ii. Executive Summary

Australia's biodiversity is rich and unique. More than 80% of our mammals, flowering plants, reptiles, frogs, fungi, molluscs and insects only exist in Australia (CBD 2012). But Australia also has one of the worst conservation records in the world: since Europeans arrived 230 years ago, 50 animal and 60 plant species have become extinct, and public investment in conservation has plummeted—the Australian Government has cut environmental spending by one third since 2013 (Morton 2017). There's a clear need for more Australians to care about nature and biodiversity. The answer lies, partly, in community engagement.

So how can organisations involved in science and conservation—namely Australian NGOs, Indigenous ranger groups and science outreach organisations like museums—best communicate their work, and the importance of conservation? How can they do this in creative and innovative ways, such as digital storytelling, and how can they do this in collaboration with artists and children?

The Fellow, Kate Cranney, visited Denmark, Canada and the United States of America to meet with 23 environmental organisations that are using effective, innovative and creative methods of communication. During interviews with media and communications staff, the Fellow focused on strategies employed by these organisations across social media, print media, exhibitions, special events, and collaborations with artists, children and the public. She asked: what are the bright spots in your organisations—what communications campaigns were successful and why? And, how can groups in Australia replicate or modify these creative ideas? This step involved collating a list of software and other supporting materials, sites and communications techniques that could be adopted by Australian organisations.

The Fellow also undertook targeted training through a digital storytelling course with StoryCenter, a global leader in participatory media. Finally, the Fellow also visited numerous museums, botanical gardens and other spaces dedicated to science outreach.

The fellowship had five primary aims:

- » To discover different creative communication methods available to conservation organisations in Australia.
- » To undertake a digital storytelling course with StoryCenter, in California.
- » To collate a list of tips and lessons about different types of communications techniques, and different supporting software to use.
- » To bring this knowledge back to Australia to support conservation groups in effectively communicating the importance of their work.
- » To develop knowledge, approaches, and networks that will inform the Fellow's professional practice and science communication work in Australia.

The Fellow has learned skills and gathered ideas and knowledge that can be adapted and implemented at the CSIRO, conservation non-profits, science museums and similar cultural institutions in Australia. These include:

- » The importance of including people in stories of conservation and science—to tell the stories of scientists or rangers in authentic, engaging ways. Digital storytelling is a key way to do this, and does not need to be complicated.
- » It is crucial to have a strong ethical framework and procedure when sharing other people's stories, especially when involving Indigenous peoples.

- » Social media is a key way to directly connect with your audience.
- » Ensure that projects have high-impact marketing and branding.
- » Animal mascots and nature-themed sculptures are effective ways to create a spectacle, build pride, and engage children and adults alike (especially when combined with educational resources and tangible follow-up actions).
- » Engage with people through interactive, nature-based exhibitions and activities. Make the events fun, social, memorable and educational.
- » There is a whole suite of free communications software and supporting resources that non-profits can draw upon to better share their message.

iii. Acronyms and Abbreviations

Acronyms

CSIRO Commonwealth Science and Industrial Research Organisation

DC District of Columbia, United States of America

DN Danmarks Naturfredningsforening (Danish Society of Nature Conservation)

DSF David Suzuki Foundation

NGO Non-government organisation

NRM Natural Resource Management

SI Smithsonian Institute

TNC The Nature Conservancy

USA United States of America

WCS World Conservation Society

WWF World Wildlife Fund

Definitions

Digital storytelling

“The practice of using computer-based tools to tell stories...[which] revolve[s] around the idea of combining the art of telling stories with a variety of multimedia, including graphics, audio, video, and Web publishing.” (University of Houston, 2019).

1. About the Fellow

Name

Kate Cranney

Employment

Content Creator (science communicator) at CSIRO Australia (Commonwealth Scientific and Industrial Research Organisation).



The Fellow at the American Natural History Museum, before meeting communications and media staff from the Smithsonian Institute.

Qualifications

- » Master of Science (with Distinction), majors in botany and science communication, University of Melbourne, Melbourne, 2015.
- » Bachelor of Law/ Bachelor Environmental Science (with Honours), Griffith University, Brisbane, 2011

Biography

Kate Cranney is a science communicator, scientist and visual artist. The Fellow has a life-long interest in the environment—she grew up on an isolated sheep and cattle property outside Goondiwindi, Queensland. The Fellow holds a Master of Science (with Distinction), and a dual Bachelor of Laws / Environmental

Science (with Honours). With interests spanning ecology, the arts, science writing, education, podcasts and film, science communication was a natural fit.

The Fellow has climbed trees in Borneo, scaled volcanoes in Papua New Guinea, counted turtle hatchlings in Solomon Islands, and pulled snakes out of traps in the Simpson Desert ... all in the name of science.

In her current role at the CSIRO, the Fellow creates stories, drawings, and films about scientific research—from space technology to agricultural science. Before CSIRO, the Fellow worked for The Nature Conservancy and created communications materials for women's conservation groups in Solomon Islands and Papua New Guinea. Earlier still, the Fellow promoted the scientists working on Bush Heritage Australia's nature reserves, joining scientific research trips to the Simpson Desert and the Tasmanian Midlands.

Before moving to Melbourne, the Fellow lived on Waibene (Thursday Island). Here, she worked with, and learned from, the Torres Strait Islander Rangers, coordinating environmental and cultural projects across the 13 inhabited islands.

The Fellow is also a self-taught visual artist. She has had several art exhibitions, and recently illustrated and co-wrote a children's book on the insects of Melbourne, 'The Little Things that Run the City'. This book was published in collaboration with the City of Melbourne and RMIT University, and is now held in every school and library in Melbourne city. She is also a keen speaker and supporter of The Laborastory, Melbourne's premier science storytelling night.

The medium may vary, but the Fellow's motivation remains: to learn about and enjoy the landscape around her, and to encourage others to do the same.

2. Aims of the Fellowship Program

The fellowship had five key aims:

- » To discover different creative communication methods available to conservation organisations in Australia.
 - » To learn how NGOs use digital storytelling, especially digital stories that focus on the people behind conservation, including Indigenous rangers and scientists doing work in the field.
 - » To investigate how conservation NGOs collaborate with artists.
 - » To observe engaging exhibitions at museums and other institutions.
 - » To undertake a digital storytelling course with StoryCenter, in California.
- » To collate a list of tips and lessons about different types of communications techniques, and different supporting software to use.
- » To disseminate this knowledge to conservation non-profits, science education institutions and other professionals in Australia, through formal and informal public talks, presentations, and writing blogs and stories.
- » To develop knowledge, methods, and networks in science communication that will inform the Fellow's work in Australia.



The Fellow in Monterey USA (above) and with Guthrie Gloag's artwork (below).

3. The Australian Context

What's so special about Australian plants and animals?

Australia's biodiversity is rich and unique. More than 80% of our mammals, flowering plants, reptiles, frogs, fungi, molluscs and insects only exist in Australia (CBD 2012). We are one of 17 mega-diverse countries in the world, along with Brazil and Indonesia. Our plants are 'extraordinarily diverse', and our animals have evolved in isolation over millions of years, creating wonderfully odd species like the platypus and the thorny devil (CBD, 2012). We are also unusually proud of our wildlife—compared to other nationalities, Australians are more likely to preference our native species over elephants or lions, for instance (CBD, 2018).

But Australia also has one of the worst conservation records in the world. Along with six other countries, we are responsible for 60% of the world's total biodiversity loss between 1996 and 2008 (Waldron et al, 2017). Since Europeans arrived 230 years ago, 50 animal and 60 plant species have become extinct. Threats posed by land clearing, climate change, wildfires, urban development, and feral animals continue. What's more, public investment in conservation has plummeted—the Australian government has cut environmental spending by one third since 2013 (Morton, 2017).

There's a clear need for more Australians to care about nature and biodiversity. The answer lies, partly, in communication and engagement. Conservation non-government organisations (NGOs) need external communication to drive impact. So how can NGOs best communicate their work, and the importance

of conservation? How can they do this in creative, innovative ways, such as digital storytelling, and how can they do this in collaboration with artists and children?

Digital storytelling

Digital storytelling is an effective strategy being adopted by many NGOs. Digital storytelling aims to tell stories about an organisation's work in engaging, educational and emotionally-moving ways. This can be done through multimedia tools like short film, through social media posts with first-person narratives, or through online photo essays. Digital storytelling is in its relative infancy in Australia. In contrast, the StoryCenter—founded in 1994 in California—is an international leader and forerunner in participatory media and videographic storytelling (storycenter.org) and helped the BBC to establish their storytelling program. Indigenous ranger groups, especially those based in rural and remote areas, have limited access to workshops and tutorials teaching these communications methods.

The Fellow aims to learn how Australian conservation groups can better use creative communications and digital storytelling to power local and national environmental change. And disseminate this knowledge here in Australia.

Non-government organisations and Indigenous rangers



Indigenous ranger at Gun-warddehwardde Lookout, Nourlangie - Photo by Parks Australia.

In Australia, environmental NGOs are uniquely suited to build the links and advocate for the actions needed to curb biodiversity loss (Gunter, 2004). These groups are buying and managing protected areas; working with governments on conservation projects; advocating for better environmental laws; and engaging Australians. Conservation NGOs also support Indigenous groups, to care for land and sea.

Indigenous people hold title over about 20 per cent of the Australian continent, an area which includes some of our most environmentally precious natural assets. Across Australia, there are over 100 separate Indigenous Ranger groups, amounting to approximately 770 full-time rangers (Country Needs People, 2018).

Indigenous rangers do tough physical work—controlling invasive weeds, eradicating pests, burning country and monitoring animals through challenging terrain. Because they are often based in remote locations, Indigenous rangers can be the first to notice new biosecurity threats. Rangers reduce carbon emissions, save endangered animals from extinction and sustain ancient cultures. Ranger programs also improve community health, empower women, and create meaningful employment (2016 “Working for Our Country: A review of the economic and social benefits of Indigenous land and sea management”). All Australians benefit from Indigenous rangers’ work, but few know about the work done by our Indigenous rangers.

By better communicating their work to donors and to the public, rangers can secure funding to continue their work, and Australia will continue to benefit from their efforts. And, by sharing Indigenous ranger stories, Australians will simultaneously learn about our wildlife and our lands and water, and have a greater understanding of Indigenous culture and the importance of ‘caring for country’. Locally, if Indigenous groups better communicate their work to their communities, these initiatives can: educate children, instil community pride, improve community buy-in, and inspire the next generation of rangers.

The Fellow aims to learn how NGOs can best apply these techniques to tell stories about their on-ground natural resource management work.

Methodology

The Fellow participated in face to face meetings and interviews, informal meetings, volunteer training sessions with NGOs, group discussions, visits to museums,

aquariums and botanical gardens, and informal visitor observations to gather information. The Fellow interviewed key communications and media staff from several conservation and science education organisations.

Finally, the Fellow also improved her digital storytelling skills through doing a short course with StoryCenter, an established, California-based training centre.

These methods have produced diverse learnings that will inform the Fellow's practice and can contribute to science communications in Australia.

Fellowship Period

The Fellow spent over three months undertaking research in Denmark, the USA and Canada, from 20 June 2018 to 1 October 2018. They visited the following cities and institutions:

Copenhagen, Denmark

- » Danmarks Naturfredningsforening (Danish Society of Nature Conservation)
- » NaTuriByen (Nature in the City)
- » Center for Born og Natur (Children and Nature)
- » Hidden Giants (Thomas Dambo) sculptures
- » Forest Kindergarten

New York City

- » Wildlife Conservation Society
- » American Museum of Natural History
- » Brooklyn Botanical Gardens

Washington DC

- » Smithsonian National Museum of Natural History
- » Pew Charitable Trusts
- » World Wildlife Fund

Arlington, Virginia

- » Rare
- » The Nature Conservancy (global headquarters)

Toronto, Canada

- » David Suzuki Foundation
- » Nature Conservancy Canada
- » Canadian Wildlife Federation

Monterey, California

- » Monterey Aquarium
- » Real Good Fish
- » The Nature Conservancy (Global Indigenous Peoples team)

San Francisco and Berkeley, California, USA

- » StoryCenter
- » California Academy of Sciences

Seattle, Washington State, USA

- » Washed Ashore

Bowen Island, British Columbia, Canada

» Guthrie Gloag's Mastodon sculpture



The Fellow (second from left) with the other participants who took part in the digital storytelling course with StoryCenter, Berkeley, California.

4. Fellowship Learnings

The Fellow identified five communications and outreach themes that emerged throughout her Fellowship. These are:

- 4.1 Art and community art collaborations
- 4.2 Social media
- 4.3 Digital storytelling
- 4.4 High-impact marketing and branding
- 4.5 Interactive exhibitions and activities
- 4.6 Animal mascots



A sign at Brooklyn Botanical Gardens (Image: Kate Cranney).



Rufus the Triggerfish, an enormous sculpture by Washed Ashore (Image: Neal O'Bryan).

4.1 Art and community art collaborations

The Fellow visited conservation and other science-based organisations who partner with artists to share their message. The artwork spanned all sorts of visual arts: from larger-than-life sculptures to digital art and photography.

Key learnings:

- » Artworks create a spectacle and engage people with your story.
- » The medium/ material can be the message (e.g. Washed Ashore sculptures)
- » Where possible, involve the community in the art-making process.
- » Sculptures hidden in nature can create curiosity and encourage people to go on a fun 'hunt' to find them. The location can be in the message.
- » Have educational materials to complement the art (e.g. Washed Ashore)
- » Include 'calls to action' with tangible follow-up activities for the audience.
- » In community art collaborations, have a community performance to show off the final artwork. This is another chance to tie in conservation messages.
- » Take photos, films and do interviews of people involved in the art-making.
- » Think creatively about how you can use the artworks after the workshop. They could be used by a school, or part of a travelling art tour.
- » Coordinate follow-up stories with external media, include information on the conservation message, and practical steps on what individuals can do.

These groups and individuals use art to share environmental messages:

- (1) Washed Ashore
- (2) Hidden Giants
- (3) Guthrie Gloag
- (4) World Wildlife Fund
- (5) NaTur i Byen (Nature in the City)

Example 1: Washed Ashore

Washed Ashore is a non-profit founded in Seattle, USA, that 'creates art to save the sea'. Since 2010, founder Angela Pozzi and a team of artists and volunteers have transformed '20 tons of marine trash into over 70 works of arresting larger-than-life public art works, drawing much-needed attention to the epidemic of plastic pollution and its negative impact on endangered species.' Each artwork is community made and features local marine animals affected by plastic pollution.



Washed Ashore art (top image: Audubon, bottom image: National Zoological Park)

The sculptures are placed in museums, aquariums, on the beach, and in other public places. Several 'Ambassador' artworks are part of 'a national traveling exhibition that includes educational signage and programs.'

The Washed Ashore website includes an Integrated Arts Marine Debris Curriculum, educational resources all about plastic pollution in oceans and waterways, and how to ‘spark positive changes in consumer habits’.

Example 2: Guthrie Gloag’s hidden sculpture

The Fellow visited ‘The Mastodon’, a sculpture by Guthrie Gloag. The sculpture is hidden in the forests of Bowen Island, off Vancouver, Canada. The mastodon is a species that lived in the area about 10,000 years ago. It is also the first species that scientists recognised as becoming extinct, likely because of human pressures. Gloag created the sculpture to draw attention to biodiversity loss and the extinction of species around the world. “I wanted to give myself, and others, the opportunity to see a mastodon in an environment similar to its natural habitat ... Just as the mastodon became a symbol of extinction, I hope that my sculpture can be a message of conservation,” said Gloag.

The artwork stands at 2.6 metres tall and is created from driftwood that Gloag hauled up to this secret spot. Its secrecy is part of the appeal—there are no signs to the sculpture, hidden deep in the forest, so people either stumble upon the mastodon, or, as in the Fellow’s case, are guided by a friend. As Gloag explained, “I like the magic of people knowing it exists but not knowing where.” The guest book, in a water-proof container, is filled with comments from adults and kids, moved by the artwork, and concerned about biodiversity loss.



Guthrie Gloag’s Mastodon driftwood sculpture. Photo: Kate Cranney.

Example 3: Forgotten Giants by Thomas Dambo

The Fellow also visited Thomas Dambo’s Forgotten Giants in Copenhagen, Denmark. The giants are in each of the six municipalities of Vestegnen (West Copenhagen). Together, they form ‘a recycle sculpture treasure hunt’—Dambo creates the giants from recycled wood to show people that trash can be beautiful. There is a rough map, but, like the Mastodon, there are no signs leading to the sculptures; finding them is part of the fun, and the message. “I wanted to get people out and explore the beautiful nature in the hidden outside [of Copenhagen] that you normally wouldn’t see,” Dambo said.



The Fellow with Little Tilde, who looks out to a lake.

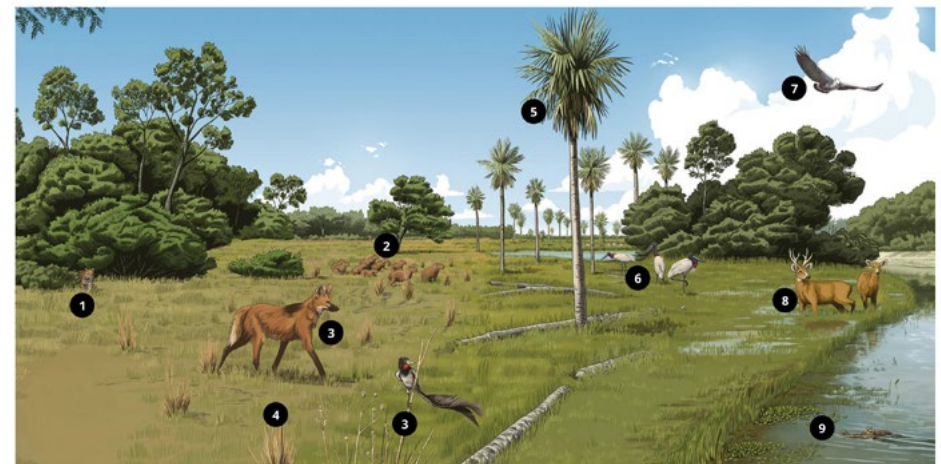
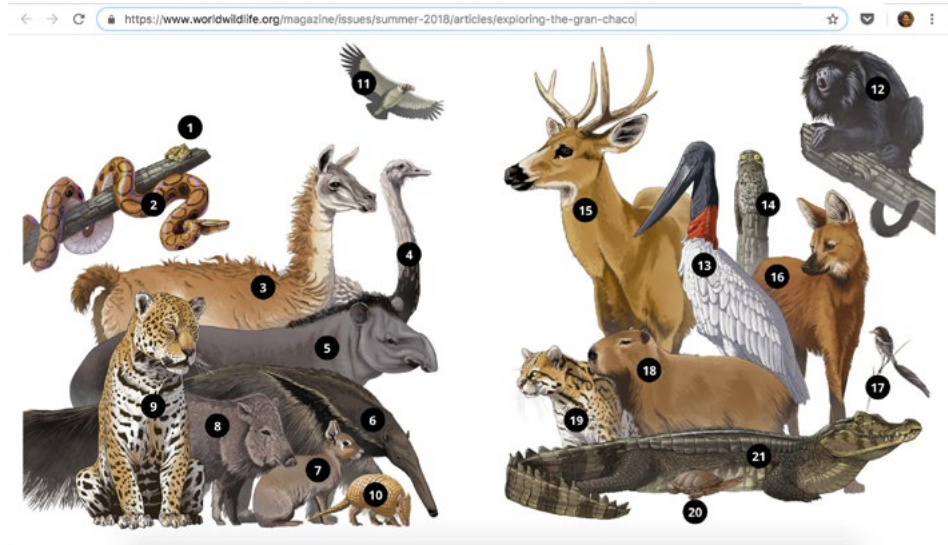


A map of the Forgotten Giants from Thomas Dambo's website. The giants are part of a world-wide project, 'The Great Story of the Little People and the Giant Trolls'.

Example 4: WWF infographics and graphic novels

The Fellow met with World Wildlife Fund. Staff from WWF explained that 'Grand Chako in Central America might be seen as a less glamorous landscape, but we wanted to show its interest and importance, so we commissioned an illustrated spread of the landscape, a centrefold that opens up.' The infographic is in the World Wildlife print magazine, and an interactive version is online.

WWF also collaborated with artists in its partnership with Matt Twombly, who wrote and illustrated the graphic novel 'Uporny's Story'. The graphic novel centres on a Siberian tiger that was rehabilitated and released, offering researchers an unprecedented look into the wild life of an elusive big cat. WWF explained that this did not anthropomorphise the animal: the illustration allowed the tiger to be the main character. It appeared in print and online.



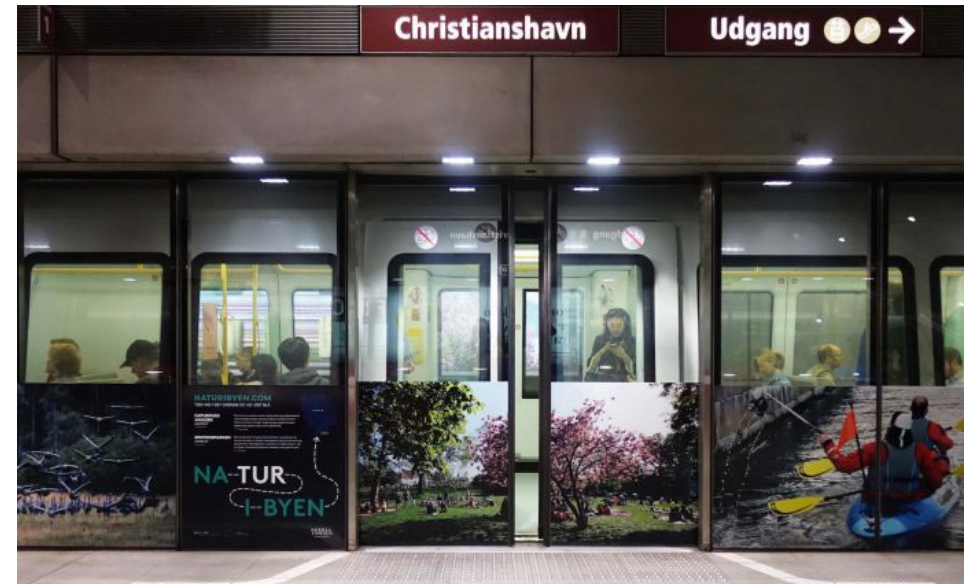


Example 5: Natur i Byen's photographic exhibitions

The Fellow visited NaTur i Byen (Nature in the City), a network of organisations that encourages people in Copenhagen to explore the nature in their own backyard. Their aim is to inspire 1 million people from Denmark's capital to get out into nature. They organise nature-based events, suggest outdoor trips around Copenhagen for adults and kids, provide nature guides, and coordinate nature-based exhibitions around the city. The exhibitions “convey the city nature and the many exciting activities in it, with pictures, sound and events.” (NaTur i Byen, 2017).



The exhibition on nature was visited by crowds of people in Copenhagen city.



NaTur i Byen's exhibition on metros and sidewalks (Top image: Life Exhibitions. Bottom image: Nina Lemvigh-Müller).

4.2 Social media

‘New information does not become science until it is made social’ ... E.O. Wilson

‘We don't have a choice on whether we do social media, the question is how well we do it’ ... Erik Qualman

Social media allows non-profits to tell their story, engage and motivate supporters, educate people about their cause, and drive donations. It's free, easy to use, creative, and you can have ‘real-time’ communication with your audience. You can also test different messages and tactics. The Fellow met with non-profits doing a stellar job in telling human science stories via social media.

Key learnings:

- » The goal is to capture the audience’s attention and motivate them to learn and respond to your message.
- » A mix of professional and authentic, less-polished social media posts is best.
- » Have fun doing social media. Engage with your audience. Make it interactive by answering the audience’s questions. Make it a conversation.
- » Use humour. For example, the David Suzuki Foundation’s video about monarch butterflies: “Warning—this video might give you butterflies”
- » Where possible, connect social media posts to external themes or events as a hook (International Women’s Day, for example).
- » Use micro-videos to give people a glimpse of the organisation’s work and the people involved.
- » Have staff wearing the organisation’s uniform. Branding is important.

The Fellow identified two groups doing an outstanding job at sharing their message via social media:

1. Smithsonian Institute and the National Museum of Natural History
2. Monterey Bay Aquarium



Example 1: Smithsonian Institute and the National Museum of Natural History

The Fellow connected with the Smithsonian Institute, at their office within the National Museum of Natural History in Washington DC, USA. She met with Tina Tennesen (Senior Communications Strategist) and Ryan Lavery (Senior Press Officer) from the Smithsonian Institute. The Museum is larger than 18 football fields and is home to the largest natural history collection in the world. Their focus is on the 'increase and diffusion of knowledge'. The Smithsonian Institute employs more than 300 educators, who share knowledge, tell compelling stories, create exhibitions and inquiry-based lessons, and is dedicated to produce 'educational programs and exhibitions that present the work of its scientists to the public' (Smithsonian, 2018).

Ideas from the Smithsonian Institute:

- » Try to get the voices, faces and stories of scientists 'out there'. Create a scientist-based campaign. For instance, the month-long #HumansOfNaturalHistory series of photos and stories (see above).

Smithsonian Institute's instagram account during #HumansofNaturalHistory

Money was set aside to photograph high quality portraits, and scientists were asked about their research, and asked to include three facts about themselves unrelated to science. Why? "Our role is to get scientists to talk like humans, but also for us to humanise scientists" (Ryan Lavery, 2018). One photo/story was posted each day for 30 days, and the portraits were printed out and positioned in the Museum's grand lobby.

- » Have some recurring elements in your social media communications plan. In 'Drawer of the Day', each day they open a draw in the archive and see what's inside.

- » If you have a small science communications team, "it's a good idea to choose a model [e.g. Drawer of the Day] and stick with it for a while." (Tina Tennesen, 2018).
- » Humour is a great way to engage with people. For instance, before a dinosaur exhibition, the Smithsonian did a YouTube series of the two actors from Jurassic Park asking and telling silly dinosaur jokes. It went so well that the Smithsonian scientists are planning to do the same thing.
- » "People want to see surprise, wonder, beauty and weirdness. It's a truism: people are hooked when you communicate in an unexpected way." (Tina Tennesen, 2018).
- » Through social media, the Smithsonian Institute directly connects people to their scientific experts, who answer the public's questions live, through initiatives like 'The Doctor is in' Twitter series (see below).

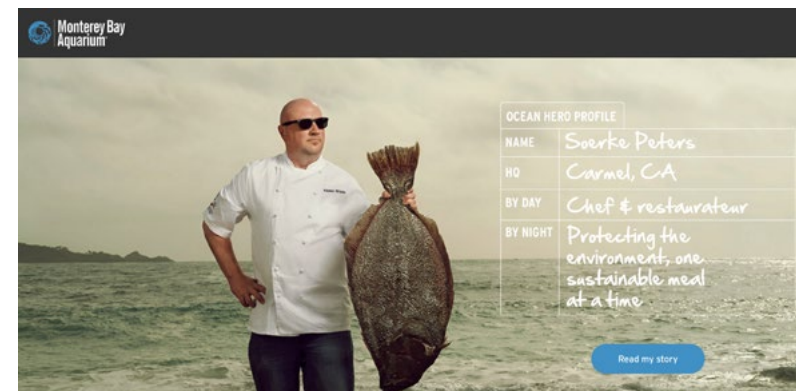


Smithsonian Institute's Twitter account and The Doctor Is In series.

Example 2: Monterey Bay Aquarium

The Fellow visited staff from the educational team at the Monterey Bay Aquarium on the coast of California, USA. The Aquarium does outstanding work in science outreach, education and communication in schools across California. With comprehensive classroom resources, the non-profit runs site-based and ex-situ educational programs for children, teenagers and science teachers. School kids have free admission, and the aquarium has over 2 million visitors a year, totalling 53 million visitors since its grand opening in 1984.

In their Ocean Heroes campaign, the Monterey Bay Aquarium combines digital storytelling and cross-platform social media to tell the stories of people in the Monterey Bay area working to protect the ocean. Below are examples from Instagram, Facebook and the Monterey Bay Aquarium website.



4.3 Digital storytelling

‘Experience alone doesn’t make a story. The core of a good story is emotion’ ...
StoryCenter

One of the key aims of the Fellowship was to investigate approaches to digital storytelling in science and conservation organisations. The Fellow focused on how to tell the stories of people ‘in the field’, like Indigenous rangers or scientists. The Fellow identified three organisations doing outstanding digital storytelling: (1) StoryCenter, (2) Rare (3) Real Good Fish and (4) the Smithsonian Institute.

Key learnings:

First-person stories are important

- » Authenticity is very important—the truth, unvarnished. If the story is authentic, it will be compelling and people will connect with it. Film people in the field. Don’t script what people say. Keep the story true to how they told it: don’t co-opt the story for your own purpose.
- » Work towards a mix of polished media (used for websites/ film screenings), and more ‘raw’, lightly-edited media (often used in social media) that makes the viewer feel like they are there. The style should fit the story.
- » Tell positive stories—hope and pride are great motivators.
- » Create high-resolution films about individuals and their daily work (Time Travel with Palaeontologist: Nick Pyenson by the Smithsonian Institute).
- » Telling first-hand stories is good for business. Increasingly, foundations and donors want on-the-ground community stories, told by the people. Stories help to close the gap between donors and people in the field.
- » In large NGOs, stories rarely ‘bubble up’—you must find them. Advocate staff to use smart phones in the field: many great stories come from field staff getting a glimpse of something amazing (WWF).

- » You need ethical guidelines to do storytelling work with people, especially Indigenous communities. “You never want people to feel that they are the poster child for an at-risk community: their rights and interests must be protected.”
- » NGOs must be storytellers, not storytakers. “There’s power in including Indigenous voices and letting groups speak for themselves. It helps to open people’s eyes and hearts to different world views” (Julie Meredith, TNC).
- » If working globally, choose local video productions for more authentic film.

Ways of communicating

- » Use personal audio stories with a high-resolution photo: see WWF’s interviews of six of their activists on ‘why they speak for the planet’.
- » Podcasts: Many groups are doing podcasts. Ensure that you’re set up for this: it’s a crowded marketplace. See Pew and Nature Conservancy Canada.
- » Emerging technology: TNC has partnered with National Geographic to create 360 videos of field staff working on Kaua’i, an island in Hawaii.
- » Not-so-digital: For many organisations, their older members (who often contribute the most financially) or those sick of ‘screen glut’ prefer print media. Many repurpose digital stories for periodical magazine stories.

Earned media

- » Foster partnerships with media outlets. Earned media allows you to share stories that are scientifically and organisationally important, but don’t have a typical news hook. The Smithsonian Institute tells its less ‘urgent’ or ‘newsworthy’ stories (scientists’ stories, why we need to keep collections) through its partnership with the Washington Post’s Tales from the Vault.
- » Go to where the audience (already) is. Earned media allows you to reach a much greater audience than your organisation’s platforms (owned media).
- » Approach partnerships with external media as a collaboration—don’t be too prescriptive about what the story will be, work on the topic together.

- » Look for opportunities to foster relationships around a news event. For instance, the Smithsonian positions itself so that its scientists are the 'go-to' people for news to call after an event (e.g. a bushfire, a virus outbreak). Pick a subject that reoccurs in the news cycle.
- » Another idea is to find a great storyteller to do a regular feature on earned media. For instance, call a radio show monthly with a great field story.

Example 1: StoryCenter course on digital storytelling

The Fellow undertook four days of digital storytelling training through StoryCenter in Berkeley, USA. StoryCenter is a non-profit that supports organisations to 'use storytelling for reflection, education and social change'. Founded in 1993, StoryCenter has supported the creation over 20,000 movies, in over 43 countries, in 17 languages. The Fellow's workshop included:

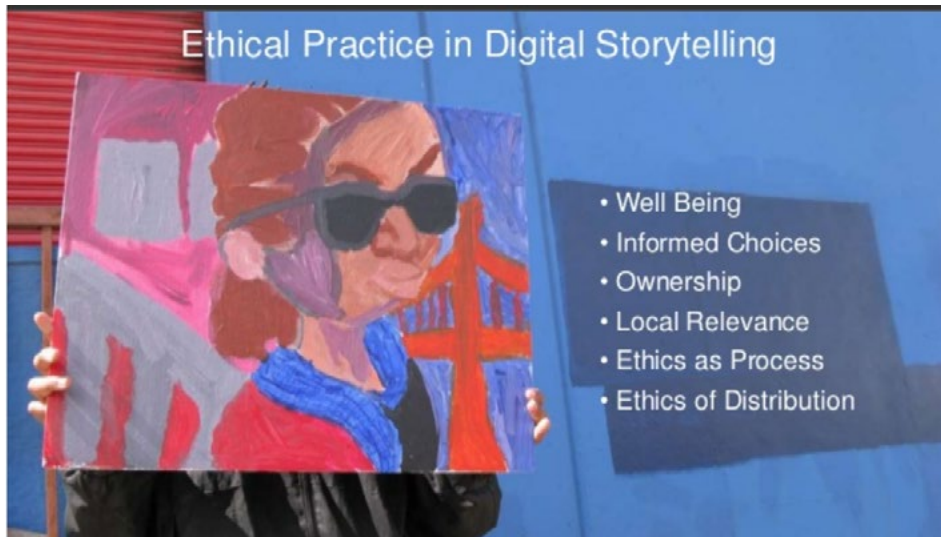
1. Group sharing and feedback in a facilitated Story Circle
2. Script writing and voice recording
3. Image preparation and storyboarding
4. Video editing: transitions, effects, music, and titles
5. Support on the production of a two- to four-minute digital story
6. Group story screening

The Fellow built her skills in digital storytelling, how to script and voice record for video, and how to create a moving story from still images (photos). The result? 'A two- to four-minute short video—deeply personal, elegantly presented—[which] has become a new form of communication, ideal for the social media world we now inhabit.' You can see the Fellow's digital story here. <https://www.youtube.com/watch?v=DqmXGWFZUE>



The Fellow working on a digital story in Berkeley. (Image: Ingrid Lindberg.)

The Fellow also developed her knowledge of the ethics of storytelling. For StoryCenter, the first principle should always be the storytellers' physical, emotional and social wellbeing—this should be at the centre of all phases of a story project. The Fellow highly recommends The StoryCenter Handbook for Ethical Practice.



Ethical Practice in Digital Storytelling (Image: StoryCenter.)

The Fellow learned more about the transformative nature of storytelling, for individuals, groups, communities and social movements. As StoryCenter says: 'Everyone has many stories to tell. People who believe they are mundane, uninteresting, or unmemorable possess beneath this mask a vivid, complex, and rich body of stories just waiting to be told. People need to be heard.'

Finally, the Fellow learned that digital stories do not need to be slick video productions created with software like Premiere Pro. Depending on the story's purpose, an audio recording played over a series of images can be equally moving, and can lead to understanding and change. In StoryCenter's words: 'Technology is a powerful instrument of creativity. Many people blame themselves for their lack of technological savvy, instead of recognizing [sic] the complexity of the tools and acknowledging that access and training are often in short supply.'

Example 2: Rare

The Fellow met with staff from Rare, a community-conservation non-profit based in Arlington, Virginia in the U.S.A. Rare started in 1973, and focuses on behaviour change conservation, and specialises in 'locally-led solutions which we bring to regional and national scale around the world.' The Fellow met with Zach Lowe, the Director of Communications, External Affairs, to ask about: (a) Rare's people-based communications materials, (b) their conservation 'Pride Campaigns' and (c) their use of colourful mascots (see below).

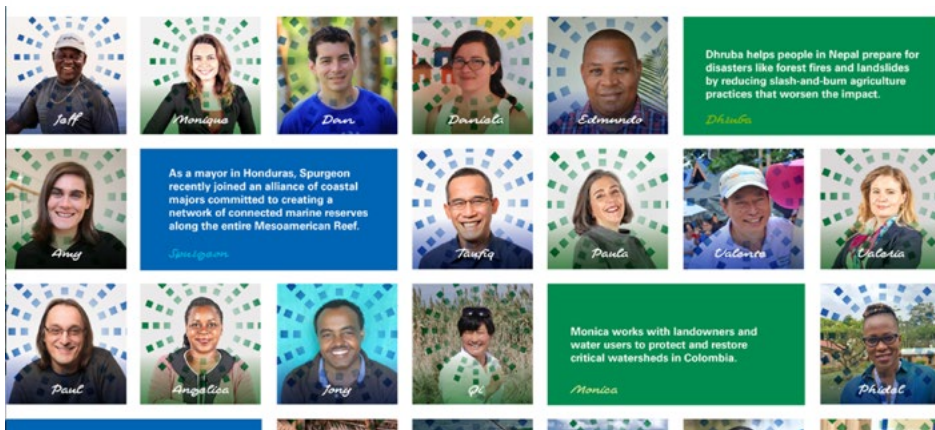
Putting people in the picture

- » Rare is one of the few conservation organisations that includes a person in its logo, setting the tone for its communications materials.
- » "Our visual communications are very people-focused. There is a community of people involved in our work. We have pictures of people, children...it's an optimistic message. Hope and pride is a huge motivator. We focus on bright spots. And we have a hyper local level – but it's relatable. Through these [local] stories we're raising voices—elevating local stories. The stories run the gamut of the type of leaders on the front line.' Zach Lowe, Rare.
- » Rare's stories also focus on the people behind the conservation campaigns.
- » For a community-lead conservation organisation, having people in the frame is also a matter of 'credibility, identity and branding' for Rare.



Rare also creates photo essays using a combination of simple, emotive and informative text, with beautifully shot photos and short film.

A Fisherman and the Sea is a photo essay that tells the story of Rodel, a fisherman in the Philippines, trying to make his living in an area that contains 10% of the world’s coral reefs, and is one of the most heavily fished seas. Each photo or video includes a few lines, and tells an individual’s story within a bigger conservation story. The layout is clean, sleek and the images are stunning. The Fisherman series also became a photo exhibit and video installation at the Design Museum in New York City, and the SXSW Eco. The photo and films were made by Jason Houston. Collaborating for clean, fresh water in El Rincon, Colombia is another photo essay that turns a potentially ‘dry’, operational project into a highly-personal story. These long form stories are repurposed for social media.



Example 3: Real Good Fish

The Fellow connected with Real Good Fish, based in Moss Landing, California, USA. Real Good Fish is “a community of fishermen and seafood lovers sharing the bounty of our local ocean by eating a diversity of species caught using sustainable catch methods.” Most seafood consumed in the USA is not produced locally or in the USA itself. The organisation aims to inform the local communities about fishing, fisheries, and the fishermen themselves. Real Good Fish organises fishermen to visit schools with different species of local fish. They also have a page dedicated to sharing stories about the fishermen. See their Fishermen A–Z website.

Photo essays and film

Photo essays are a collection of images that tell a story and propel a narrative. Photo essays are an effective way to tell human stories of conservation. Rare has worked with photojournalists like Jason Houston to create photo essays. ‘Our goal was to help our audiences understand the lives of the people we’re working with in a more intimate way’ (Corinn Weiler, Senior Manager, Head Creative). The videos are also hyperlocal. As Zach Lowe said: ‘We focus on communities and behaviour change. Then when people see [these hyperlocal films], others recognise that it is possible for them to do the same.’



Tony Nguyen

Fifteen years ago when Tony moved to the Monterey Bay area, he had never set foot on a fishing boat. In fact, Tony's daughter bought him his boat, the Eagle, so that he could become a fisherman and leave his 17 year job as a welder for the Navy. For 3 years, Tony taught himself how to fish, making no money, until he says he finally learned how to catch fish and be a real commercial fisherman. Since then Tony has been following the tides, fish, bait, water temperature, wind, moon, weather, and seasons with eight years of data that help him predict where and when the fish will be found - a remarkable amount of information to be tracking!

Getting a tour of the F/V Eagle, Tony shared with us his simple but formidable galley: full range camping stove, high quality old steel knives like they used to make, worn out cutting board, well seasoned pots and pans, shelves and drawers stocked with an assortment of spices, sauces, and ingredients far beyond what most of us stock in our full sized kitchens at home. I asked him what his favorite fish was and he quickly responded "I love eating all fish," and with little encouragement, we spent 30 minutes discussing his favorite recipes.

When asked his favorite thing about fishing he said he likes working hard and problem-solving, and having to know everything: taking care of the boat, understanding regulations, taking care of the fish, and knowing how to fix all the problems on the boat himself.

Tony, 55, has one daughter and four sons. When he's not busy as a father, he is fishing, year-round. Depending on the season, he fishes sablefish (black cod), grenadier, salmon, rockfish, and Dungeness crab. At the time of the interview he was outfitting his boat to fish halibut. His message for our members: "Cold water fish are the best because they have firmer, more flavorful meat. Avoid most foreign fish because you don't know how long it's been traveling, and most farmed fish is not so good because the water is not clean."



Carl Azevedo "Bocci Boy"

Bocci's call to the ocean and fishing began as a child, fishing with his father on the family's little skiff out on San Francisco Bay. On weekends, his family would escape the city and stay in their cabin in Capitola.

When he got older he had the opportunity to move to Santa Cruz, working as a...

[Read More](#)



Dave Biagini

Dave loves the ocean and saltwater. He started fishing at Coyote Point in San Mateo years ago and hasn't quit. Today, he lives in Aromas and makes a living as a real estate broker as well as a commercial fisherman. He believes that living in north Monterey County allows him to enjoy some of the...

[Read More](#)



Stan Bruno

Stan Bruno is a long time salmon, albacore, sand dab, and crab fisherman. A man of many skills, Stan has always made his living working outdoors. For many years Stan complemented his fishing career in the off season by guiding hunts for big game like elk and working on the fire crew for the US...

[Read More](#)

Example 4: Smithsonian Institute

The blog 'Smithsonian Voices' provides a platform for the 'hundreds of [Smithsonian Institute] scholars, researchers and curators, each with an amazing story to tell about their work, their quests and their passions.' It's a first-person perspective, and the scientists get to speak to the audience directly. Also see the Collections Sampler, a sample of SI's varied collections.



4.4 High-impact branding and marketing

Branding is about how the world sees your organisation, marketing is how you can influence people to view your organisation in a particularly way. Branding and marketing are not just for big business; for non-profits, they're key for your public impact. A strong brand and good marketing will help you share your message, raise money and builds your reputation. The Fellow met with the David Suzuki Foundation (DSF), a non-profit organisation that utilises extremely effective branding and marketing, especially for their individual campaigns.

Key learnings:

- » Think about the campaign branding and marketing early. Make sure you have an attention-grabbing name (e.g. Got Milkweed? or BIMBY (Bees in My Backyard)).
- » Keep 'the consumer' in mind (for example, make sure your URL is catchy).
- » Have people in your campaign help with your marketing. For instance, the

Butterfly Rangers were shared DSF's message on external media.

- » Start with things that people know and like to build pride, like the Monarch Butterfly. Or use an iconic species. For instance, for the Pollinator Protection Strategy, DSF focused on Toronto's 'official bee', the green metallic sweat bee.
- » Have a great brand. Have people involved wear branded clothes for photos.
- » Be creatively consistent with your brand (the logo, the colour palette, the voice and tone used in telling stories).
- » Create something for the people involved in your campaign. Make shirts, take lots of photos, make artworks (see the beautiful Butterflyway Maps).

Example: David Suzuki Foundation

In Toronto, Canada, the fellow met with Jode Roberts, the Senior Strategist and Manager of Pollinator Programs at the David Suzuki Foundation, to learn more about the non-profit's use of marketing and branding in two successful campaigns.

Got Milkweed?

There has been a 90% drop in the eastern Monarch Butterfly population (that spans Northern American, migrating from Canada, through the eastern states of USA, to Mexico and back again) since the 1990s. Monarch butterflies depend on milkweed for their survival, but more than a billion of these plants have been lost through the butterfly's range. The two 'villains' responsible for this loss are agricultural and climate change. The DSF recognised that 'both are disempowering, and everyday people can't do anything about those causes'. DSF wanted to organise a campaign that offered people practical solutions to helping monarch butterflies, so they:

- » Launched its #gotmilkweed campaign in April 2013.
- » Sold milkweed plants in Toronto to encourage residents to plant milkweed in yards and on balconies. Homegrown Park Rangers (see below) also planted milkweed in local parks and schoolyards.



- » Ontario government removed the plant from its weed list.
- » Encouraged people to pledge to help monarchs (the Monarch Manifesto).

By 2015, the #gotmilkweed campaign inspired over 10,000 milkweed plantings in Toronto, and another 11,000 Canadians signed the Monarch Manifesto. (“Urban gardening guru Lorraine Johnson noted, these and other campaigns have made milkweed the hottest native plant on the market.”) The DSF built on this success in 2016, and relaunched a national version of the #gotmilkweed campaign. The campaign drew a great deal of media coverage, in print and radio.

The Butterflyway Project

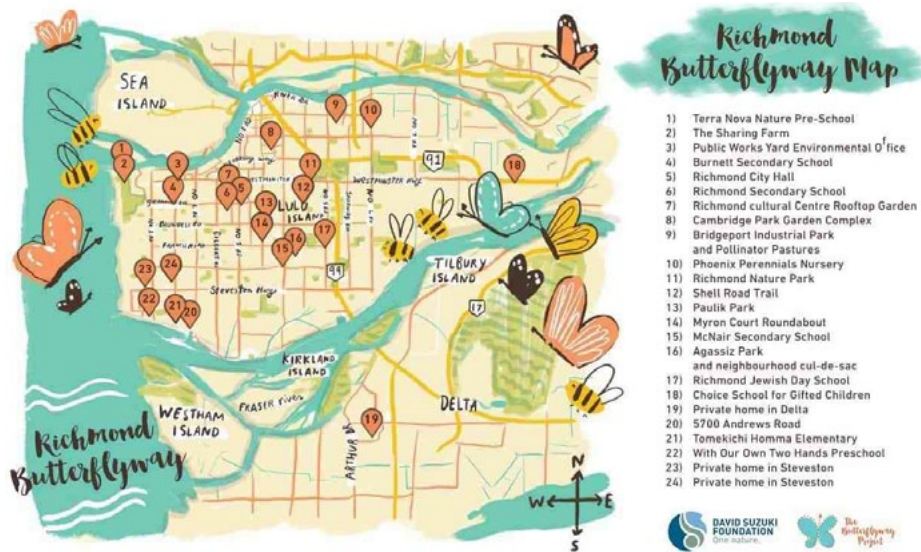
The Butterflyway Project is “a citizen-led movement that is growing highways of habitat for bees and butterflies across Canada”. It started in 2017, when DSF “recruited a team of volunteer Butterflyway Rangers in each community ... their mission: to plant networks of native wildflowers in yards, schoolyards, streets and parks.” To become an official Butterflyway, at least 12 ‘pollinator patches’ must be



planted in the local area. Then, each area receives an official Butterflyway sign and recognition on their website and maps (see right). The campaign has a great logo, and the maps for each Butterflyway are eye-catching and beautiful. DSF’s brand is on all content, and the hashtag #butterflyway on signs and canoes.



Daniel Woodward Elementary students in their pollinator garden. Image: DSF



Part of the Butterflyway Project included the use of canoe gardens: transforming old canoes into pollinator gardens. For the DSF this was great as canoes are symbolic of Canadians, they create a spectacle. The canoe gardens, like the campaign itself, are playful and important. See the film for the campaign online.



Canoe gardens, part of Butterflyways. Image: David Suzuki Foundation



4.5 Interactive exhibitions and activities

“Anything is possible. There’s a lot of local creativity in any neighbourhood, you just need to bring those people together. Get out into community. Connect with as many people as possible.” Jode Roberts, David Suzuki Foundation.

Interactive exhibitions, events and activities are a great way to connect people

to a conservation message in a tangible, memorable way. The Fellow met groups organising bush walks in remote areas, hosting gardening days in urban areas, coordinating community art projects, and creating nature-based museum exhibitions. There is one shared understanding: the ‘audience’ is not passive – the public is encouraged to be a part of, and to contribute to, the outcome of the project.

Key learnings:

- » Make it fun: Have music. Have food. People are more likely to attend and remember fun events (see DSF’s Homegrown National Park Crawl).
- » Make it social: Have fun get-togethers for people involved in a campaign.
- » Make it educational: Have supporting resources and information for exhibitions and activities. If appropriate, have bilingual resources.
- » Make it memorable: Take photos and videos of people involved in an exhibition, activity, event or campaign to use for follow-up communications. (People love to see photos of themselves).
- » Marketing and branding: Make sure that activities have engaging, high-impact marketing and branding (see Part 4.4). Wear branded shirts.
- » Exhibitions: Exhibitions can ‘take the museum to the world’, for instance the Smithsonian Institute brings dinosaur bones to different places (such as schools). Exhibitions need not be high-tech—you can have insects in a terrarium, or scientists talking about, and showing photos, of their work.
- » Collaborative artworks: Create nature-based artworks with the community. For instance, The Nature Conservancy Canada are getting First Nations children outdoors to take photos of nature, and learn about plants and animals. ‘It’s not just engaging with the kids – it’s that the kids may become Rangers that support fisheries. We’re thinking long-term.’ (Julie Meredith, 2018).
- » Curriculum: Create classroom resources for schools. Groups like Monterey Bay

Aquarium and the Smithsonian Institute are doing this, with their middle-school webcast series, Smithsonian Science How.

- » Follow-up: Make sure you provide and/or let people know about follow-up educational materials and steps for positive action. Keep people involved.

The following groups and individuals use interactive exhibitions and activities to share environmental messages:

- (1) David Suzuki Foundation
- (2) Danmarks Naturfredningsforening
- (3) California Academy of Sciences
- (4) Brooklyn Botanical Gardens

Example 1: David Suzuki Foundation

Butterflyway Project and the Homegrown National Park Project



Volunteers at a Butterflyway Project event. Photo: David Suzuki Foundation.

The David Suzuki Foundation has created numerous events tied together with the Butterflyway Project (see above) and the Homegrown National Park Project. The Homegrown National Park Project aims to provide opportunities for people in Toronto to connect to nature where they live. DSF trained 21 local volunteers to become 'Neighbourhood Park Rangers'. Their goal? To 'reimagine the city as a National Park' so that 'strips of pavement and school yard lawns became butterfly gardens, front yards became raingardens filled with native plants, guerrilla plantings appeared along streets, and old canoes filled with pollinator-friendly plants appeared in their neighbourhood' (David Suzuki Foundation, 2018). You can see the video here. <https://www.youtube.com/watch?v=XfDWQ2wF3b0>

DSF organises a whole suite of fun, celebratory events and social-media challenges (see the 30 x 30 Nature Challenge) linked to its campaigns. See below for DSF's photos from one of the Homegrown Park Crawls: a band-lead crawl of 1000 residents past new pollinator gardens, finishing with a family-friendly festival, with food, theatre, performances and music. See the great video here.

Bees in My Backyard (BIMBY) is a citizen science project that 'bring attention to Toronto's more than 350 species of wild bees.' Through BIMBY, DSF recruited over 100 households to monitor these bee populations, and create their own 'wild bee sanctuaries' and wild bee hotels in their gardens (David Suzuki Foundation, 2019).

I AM A NEIGHBOURHOOD PARK RANGER

The Homegrown National Park Project

These 21 Neighbourhood Park Rangers are volunteers with the Homegrown National Park Project. They were recruited and trained by the David Suzuki Foundation in April 2013. With backgrounds ranging from architecture and engineering to theatre and illustration, the Rangers are helping to bring nature home to the former corridor of Toronto's Garrison Creek, where they all work, live and play. Throughout the summer they will be turning yards into edible gardens, flower-bombing alleyways, parks and potholes, and transforming unloved patches of dirt around schoolyards and parking lots into butterfly-friendly gardens.

While the Park Rangers are adding green to the urban fabric, one yard at a time, the Homegrown National Park Project is about more than just beautifying the city and making space for birds, bees and butterflies. It aims to change the way people connect with nature and their neighbourhoods.

*** Are you interested in helping to bring nature home? Connect with one of our Park Rangers today.**
www.davidsuzuki.org/homegrown

David Suzuki Foundation
 Homegrown National Park

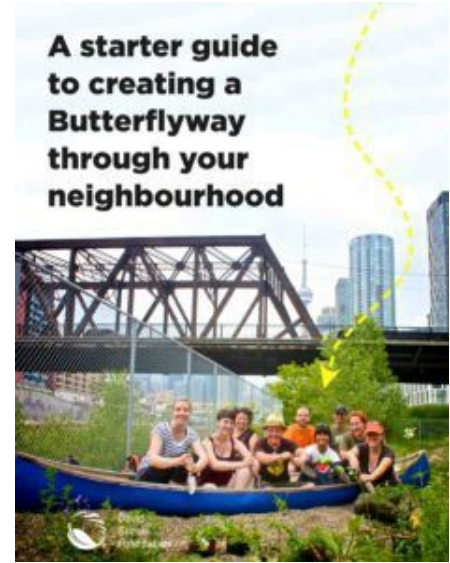
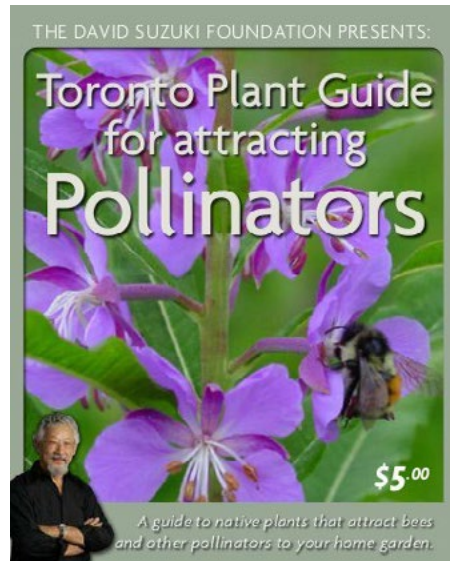
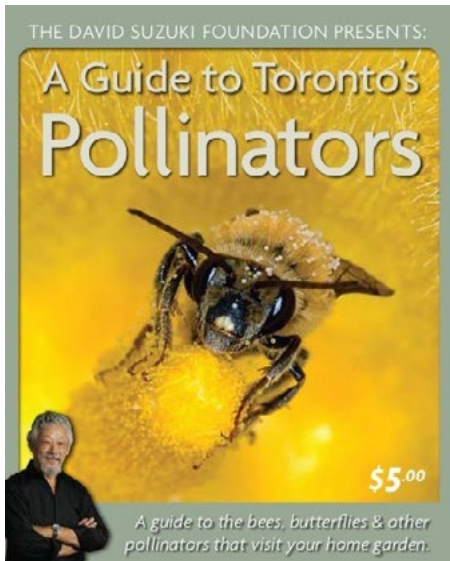
Image by the David Suzuki Foundation.



Images by the David Suzuki Foundation.

Supportive resources and materials

For these campaigns, the David Suzuki Foundation has created informative, free resources. For instance, a visual identification guide for the Common Pollinators of British Columbia. There are also many ‘how to’ guides, like how to grow a native bee home, how to make a canoe garden, and ‘How to grow a National Park in your backyard: The Homegrown National Park Project’.



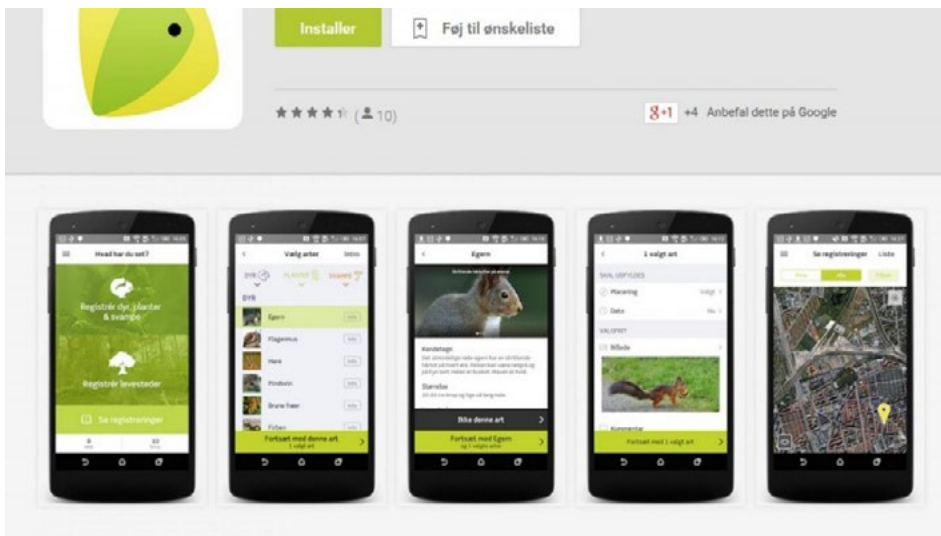
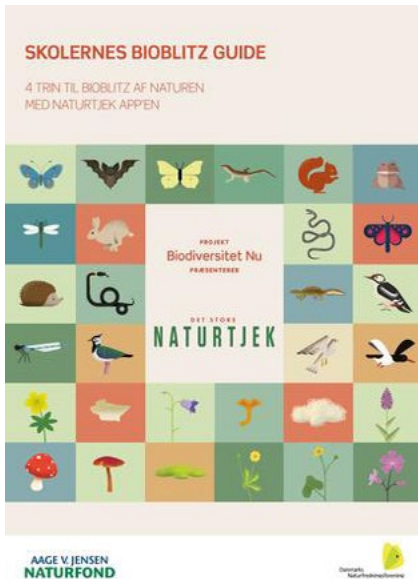
Images by the David Suzuki Foundation.

Example 2: Danmarks Naturfredningsforening (Danish Society of Nature Conservation)

The Fellow visited the Danmarks Naturfredningsforening (DN) in Copenhagen, Denmark. DN is the largest nature conservation organisation in Denmark. It has 130,000 members, 95 divisions and 1500 volunteers around the country. DN does three things well: providing educational resources to support their activities, coordinating several outdoor activities (run by DN or DN-trained volunteers), and suggesting several do-it-yourself ideas for your own activities.

Materials for teaching

DN's provides countless free booklets and materials to support this learning. School's Bioblitz Guide (Nature Check). There are also apps, for example the NaturTjek (Nature Check) app.



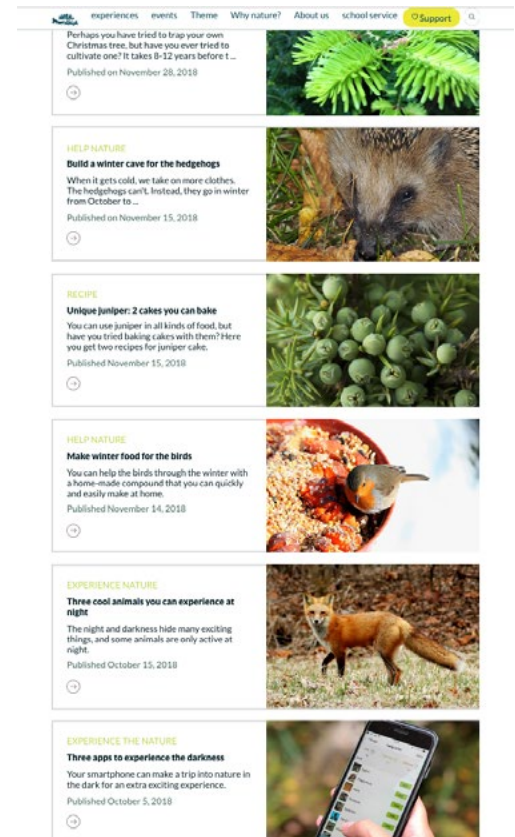
Programs and tours that you can join

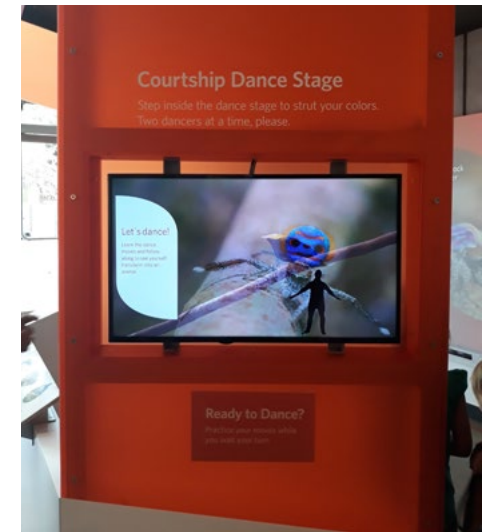
The Fellow attended the one day training for the volunteer Natur Guides, in Copenhagen. These volunteers run nature field trips with the public across Denmark, across the year, rain, hail, snow or shine. DN provides the volunteers with supportive books and resources to hand out to field trip participants.

The Fellow participated in a one-day volunteer NaturGuide course in Denmark.

NaturNinja (Nature Ninja)

NaturNinja provides nature ideas for kids and families, offering suggestions on nature activities, e.g. wood whittling, bird-gardening and making caterpillars from chestnuts. For DN staff, the aim of NaturNinja is to connect the next generations to nature, and this is especially useful in an urban setting.





Example 3: California Academy of Sciences

The Fellow visited the California Academy of Science in San Francisco, USA. Several of the displays were interactive and fun (for adults and kids). One interactive activity involved wearing life-sized condor wings made of felt. In another interactive exhibition, you can mimic the dance moves of various animals, including birds of paradise and peacock spiders. Finally, in one room, visitors could draw their favourite animals and stick their artworks on the walls.

Courtship Dance Stage and drawing room (all photos by the Fellow)



Example 4: Brooklyn Botanical Gardens

The Fellow visited the Brooklyn Botanical Gardens in Brooklyn, USA. The gardens had several interactive games, inside and outside, with fun signage to engage kids while walking through the gardens, engaging kids to smell flowers, guess at the origins of the plants' names, and to draw flowers.



4.6 Animal mascots

“The mascot looks playful. You might see someone dressed up in a giant red spooner crab costume, leading schoolchildren in a song. But behind the mascot, and the complex campaigns for which they are a symbol, is serious science.” Dan Heath, author and former Rare Trustee.

The Fellow visited Rare in Arlington, USA. Rare uses social marketing – the promotion of behaviours that benefit individuals and society – to motivate communities to be proud of their local environment, which ultimately leads to behavioural changes that benefit the environment.

Rare’s work is based on their signature Pride campaigns. A Pride campaign is a conservation campaign that ‘inspires people to take pride in the species and habitats that make their communities unique, while also giving them alternatives to environmentally destructive behaviors [sic]’ (Butler et al, 2013). Local partners are trained and supported by Rare to run the Pride campaigns over a two to three-year period.

Rare has launched over 300 Pride campaigns in over 50 countries to ‘inspire local communities to adopt more sustainable fishing habits, to end deforestation, preserve habitat and save species. Pride campaigns make science fun. Perhaps the most visible and well-known part of Rare’s campaigns are their mascots.

‘All Pride campaigns include a lovable mascot based on a local species and innovative events and materials that appeal to children, parents and politicians’ (Butler et al, 2013). The community chooses the species, which is often tied to cultural touchpoints, and the mascots are made by local manufacturers. Kids love mascots, and adults are engaged through their kids. To read more, see Rare’s booklet ‘The Principles of Pride: The Science Behind the Mascots’

Apart from mascots, Rare and their local partners use puppet shows, public events, radio shows, religious sermons, billboards, art contests, community theatre shows, festivals, murals, songs and school visits.

Key learnings:

- » Work with local communities to decide upon the mascot animal, and use local manufacturers to make the mascot.
- » Name the mascot, and use it in communications materials for the campaign. Have the mascot at all events and campaign activities.
- » Animal mascots are just one part of a social marketing framework; get creative and use radio spots, art contests and community events to build pride. Build pride in the community—it’s a great motivator.



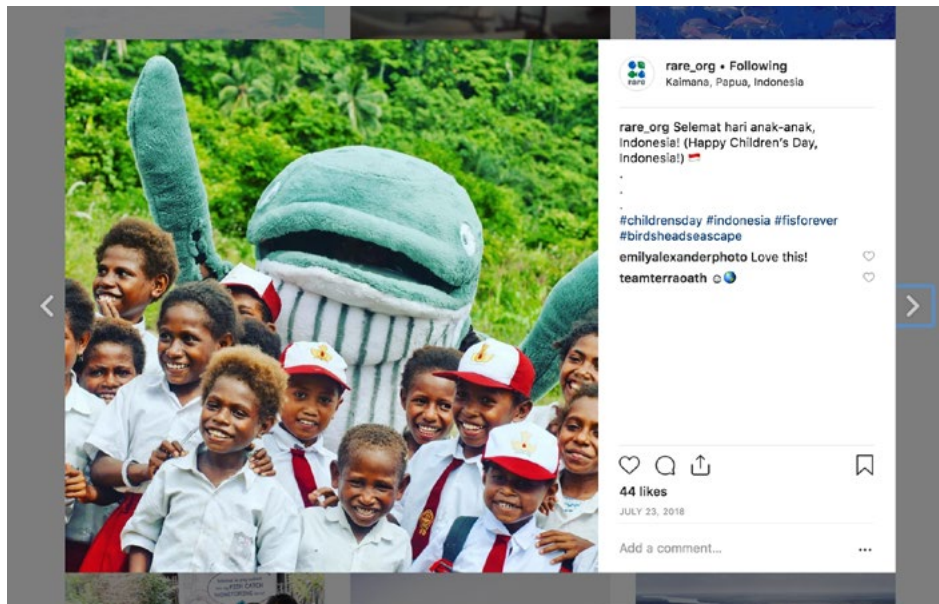
Rare’s mascots in action. Images: Jason Houston.



Fellowship learnings and concluding remarks

The Fellow has investigated many communication methods, conservation campaigns, exhibitions, displays, programs, artworks, practices, and concepts. These interactions were grouped under six key ideas: (1) Art and community art collaborations (2) Social media (3) Digital storytelling (4) High-impact marketing and branding (5) Interactive exhibitions and activities (6) Animal mascots

The organisations mentioned above do not cover all the Fellow's interactions, but they are examples of outstanding creative communications. They offer readers a glimpse into the projects that the Fellow found particularly impressive and thought-provoking. The examples shared here also provide science communicators and conservation non-profits in Australia with ideas on communicating their work in a creative, effective and, ultimately, fun ways.



Rare's mascots shown in the organisation's Instagram account.

5. Personal, professional, and sectoral impact

The Fellowship has had a significant impact upon the Fellow, personally and professionally. The Fellowship will also add to the body of research in the field of science communication, and inform the work carried out within the sector into the future.

Personally

The Fellow met with numerous science communicators—writers, videographers, conservation marketers, environmental sculptors—across North America and Scandinavia. The Fellow was inspired by these professionals that are involved in, and in some cases, spearhead best-practice creative science communication. The people that the Fellow met with were from a variety of renowned institutions from advocacy-based non-profits to government-funded museums.

The Fellow developed their skills in networking through boldly cold-contacting over 20 organisations to arrange meetings, interviews and field visits. Through this, the Fellow also had the opportunity to visit numerous museums, aquariums and other educational institutions and, moreover, was invited to travel ‘behind the scenes’ into the collection area of these institutions. Across the board, people were incredibly generous with their time. The trip has exposed the Fellow to new ideas and bold ways of thinking that will undoubtedly fuel their future work.

Professionally

Science communication, especially in conservation organisations, is a relatively small field. The Fellowship has been an invaluable opportunity for the Fellow to further their career: it has linked the Fellow into a global network of professionals

working in science communication and outreach. Hearing the stories behind creative communication campaigns has allowed the Fellow to learn the recipe for successful projects, and, conversely, what to avoid. The Fellow also built on their skills in digital storytelling through the StoryCenter course.

Upon finishing the Fellowship and returning to Australia, the Fellow accepted a role as a Content Officer with the CSIRO (the Commonwealth Science and Industrial Research Organisation). The skills and knowledge learned through the Fellowship will directly impact on the Fellow’s future work.

Sectorally

The Fellowship has allowed the Fellow to highlight the smorgasbord of creative communication campaigns being designed and used by organisation in Denmark, the USA and Canada. The Fellowship learnings demonstrate the opportunity for Australia’s science institutions and conservation NGOs to move toward using more creative communications methods in sharing their message. Conservation issues are, in many ways, international, and the ways to address these issues are similarly universal—speaking to peoples’ emotions, sharing personal stories of the people involved in the field (be they scientists working in museums or rangers working in remote areas), using social marketing techniques, involving the community, and fostering a sense of pride in one’s local environment.



The Fellow with Guthrie Gloag's Mastodon sculpture on Bowen Island, Canada.

6. Recommendations and considerations

“Always remember -- there is an audience and the stories will be interesting.” Tina Tennesen, Smithsonian Institute

Professionals

Think creatively about communications in your NGO or science institute: there are so many ways to tell your story and engaging with your audience. Consider partnering with artists, children, film-makers, performers, and other community members. Treat each project as a trial—if one communications method doesn't work, try another. Take courses (or train yourself) in different communication techniques such as film-making or simple graphic design—many are free, like Canva. Other courses are run by groups like Digital Storytellers and Science in Public. See the Appendix free and for-a-fee resources. Consider joining an industry group like Australian Science Communicators to learn and share new ideas with your peers. Most of all, have fun with it.

As Australia's national science agency, CSIRO aims to share the outcomes with its research with all Australians. For the Fellow, she has, and will continue to, use the storytelling and science communication skills learned in her work as a Content Creator with CSIRO, specifically on big campaigns, such as International Women's Day, Pint of Science, and on the 50th anniversary of the Apollo 11 moon landing. The Fellow is also creating eye-catching digital drawings and short films as part of her role, to engage even those people typically uninterested in science.

Scientific Organisations and Cultural Institutions

Share people's first-person narratives about their life or work (for instance, research scientists, rangers or fishers). Celebrate the human side of conservation. Ensure that, before you do this, you have an ethical framework in place for how you collect, edit and share digital information. The Fellow highly recommends the StoryCenter's Ethical Practice handbook.

Also, communications or media staff can run basic training sessions for scientists, land and sea managers, rangers and other field staff on digital storytelling, especially capturing short film (this can always be edited later by communications or media staff). This will ensure that your organisation gets more authentic stories from the field, and these are the stories that donors and all audiences connect with. Finally, be sure to tie this training to tangible outputs or events—make it meaningful. See the Appendix.

Encourage scientists to take a 'travel diary' when in the field. If they're away for 12 days, encourage them to write 12 small photo stories on what they find (even if only 30 words for each photo). Everyone is a communicator.

Sector

Through communities of practice and science or conservation conferences, develop a discourse around the importance of social marketing and behavioural change in conservation campaigns. Build on campaigns so that they make communities proud of their environment, and motivated to help protect Australia's unique, threatened biodiversity. Use effective branding and marketing techniques.

Promote better communication, even within the smallest NGOs. Fund staff members to attend digital storytelling short courses: the ability to make (shoot, edit and share) a three-minute high-impact film on a smart phone is revolutionary, and so important on all levels for NGOs. Use earned media to reach a bigger audience.

As a whole, the sector will benefit from greater engagement, leading to a more educated audience who are more likely to act on this knowledge by supporting science and conservation-based causes, and rallying for better laws and policies. Telling authentic stories will also lead to greater trust in science-based institutions, which is currently threatened by post-fact rhetoric.

Universities

Encourage scientists and land managers to learn about communications, engagement, branding and social marketing early on in their career. Tie communications training to their research and to tangible outcomes. Encourage events like Three Minute Thesis, Dance Your PhD, Laborastory or Pint of Science to foster engaging outreach. Make it fun. If you're interested in studying science communication at university, you can see a list of courses here. Again, for universities, ensuring that the public understands your science engenders trust, belief in the benefits of research, and a greater likelihood of ongoing support.

Government

Fund innovative education, communication and community outreach projects that combine art and science to spread conservation messages. As one example, the CSIRO's Indigenous seasons calendars are a great way of sharing complex information in a clear, education and detailed way. More broadly, increase long-term funding to conservation programs working to protect Australia's unique biodiversity.



At the Museum of Natural History, New York. Image: Kate Cranney

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Appendix:

Things to help you share your story.

Here are some resources that the Fellow has come across on her travels. This list is separated into resources that are (a) for free or (b) for a fee. It's not a definitive list, but there are some communication gems here.



The fellow and her sister doing the Digital Storytellers course in 2016.

For free

Before you jump in, get strategic about your communications

If you want to get strategic, and have a plan for your communication outputs, visit the free, online tool called Smart Chart. It helps non-profits think about their audience, messages and what activities they'll use to meet their goals.

Create branded print and digital materials with Canva

Canva is a free graphic-design tool website for digital and print media design and graphics. Canva 'uses a drag-and-drop format and provides access to over a million photographs, graphics, and fonts'. You can use it anywhere as it's web-based. There are hundreds of templates that you can use to design and graphics, including infographics, signs, posters and Instagram posts and other branded materials. And it's free! For tutorials, see: [canva.com/learn/tutorials/](https://www.canva.com/learn/tutorials/)

The premium version of Canva, which allows you more templates and other features, is not free. But non-profits can apply for a free licence if you are a:

- » Charity registered with the Australian Charities and Nonprofits Commission
- » Income tax exempt not-for-profit organisations as defined by the ATO.

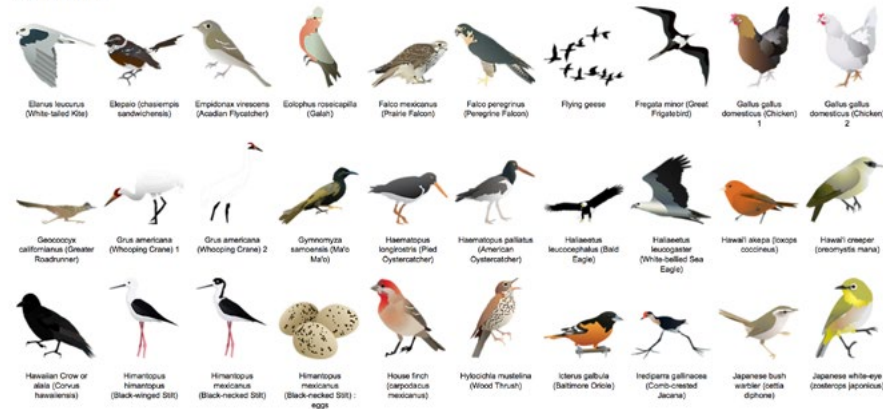
For more information, see: <https://about.canva.com/canva-for-nonprofits/>

Free icons and vector graphics

Flaticon: An online database of icons. Thousands are free (another 1.5 million are available for the 'Premium' paid subscription). flaticon.com/

IAN Symbol Libraries. The Integration and Application Network (IAN) website contains a library of 2951 free custom-made vector symbols designed to improve science communication products with diagrams of complex processes. There are realistic vectors of many Australian plant and animal species. The symbols are free, but you must attribute the creator: ian.umces.edu/symbols/ For a full catalogue of all the amazing science-based vectors see this pdf: ian.umces.edu/pdfs/ian_symbol_library_catalog.pdf

Fauna: Birds



A snap shot of some of the vectors available through the IAN Symbol Library.

Free photos and photo-editing software

Flickr is one of the most popular sites for finding free photos under the creative commons licence. flickr.com/creativecommons/ A free account also allows you to upload and share up to 100 MB per month).

Free Nature Stock: royalty-free nature stock photos and videos, under Creative Commons Zero, so you don't even need to attribute them freenaturestock.com

Pixabay has royalty-free images, illustrations and vector graphics. pixabay.com/

Unsplash: As above unsplash.com/

PicMonkey is software that allows you to crop and resize photos for free (the software for this (e.g. Photoshop) is normally pricey). picmonkey.com/

Free fonts, infographic templates and GIFS

Font Squirrel: Oodles of free fonts: fontquirrel.com/ Also see 1001Fonts.com

Hubspot Infographic Templates: Download 11 templates that to customise in PowerPoint or Adobe Illustrator. hubspot.com/infographic-templates

Giphy GIF Maker: Create animated video GIFs and slideshows with captions: giphy.com/gifmaker

Make a website

There are many free options for hosting and building a website hosting.

- » Wix: <https://www.wix.com/>
- » Weebly: <https://www.weebly.com>
- » Go Daddy: <https://au.godaddy.com/>
- » SquareSpace: <https://www.squarespace.com/>
- » Wordpress.com: www.wordpress.com

Google Grants: Awards non-profits \$10,000 in Adwords advertising budget each month. See if you're eligible here: google.com/grants/eligibility/

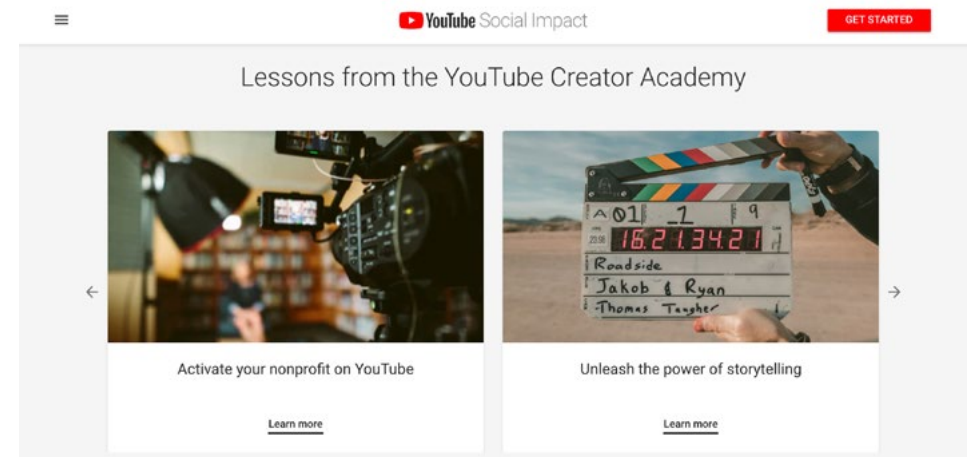
Create social media accounts: Instagram, Facebook, Twitter, etc.

Get started on your social media, with any combination of these free platforms. Choose the platforms that are right for you. You don't need to have all of these.

- » Instagram: instagram.com/
- » Facebook: facebook.com
- » Twitter: twitter.com
- » YouTube: youtube.com/
- » Snapchat: snapchat.com/
- » You can add an online newsletter (people subscribe through the website).

Confused about where to start with social media? Check out:

- » Social media for non-profits by Canva: canva.com/learn/social-media-for-nonprofits/
- » A Guide to Social Media for Non-Profits: wholewhale.com/wp-content/uploads/2018/11/The-Nonprofit-Organizations-Guide-to-Social-Media-.pdf
- » YouTube's Nonprofit Program offers eligible charities tools and support to create compelling videos, and ways to fundraise (see 'donation cards').



Screenshots from the YouTube Creator Academy. (Image: YouTube)

Apps that will make your social media life easier / more aesthetic

- » Layout (for Instagram): combine several photos into a single image
- » PicMonkey (Instagram): A photo editing platform (text, watermarks, etc.).
- » Periscope (Twitter): Allows non-profits to broadcast live videos from special

events, while 'on location'.

- » SnapWidget: Collate a collage of Instagram photos for your website/ blog.

Managing your social mediate accounts

- » Buffer: Schedule social media posts across Twitter, Facebook and LinkedIn. Also provides analytics to see how your social media is performing: buffer.com/
- » Hootsuite: Manage all your social media accounts from a single dashboard. A free subscription allows one user to schedule social media posts for up to three accounts (e.g. Facebook, Twitter, Instagram): hootsuite.com/plans/free
- » Later: Schedule Instagram posts ahead of time. app.later.com/user/login

Send your supporters email newsletters

Now that you have your website and social media set up, you can offer for supporters to sign up for a regular email newsletter (say once a month). You can use:

- » Campaign Monitor: manage email subscribers: campaignmonitor.com
- » MailChimp: Another email marketing service. The free plan allows you up to 2,000 subscribers and 12,000 emails per month. It also offers a 15% non-profit discount: mailchimp.com/
- » Get Emoji: Emojis in email subject lines increase open rates. getemoji.com

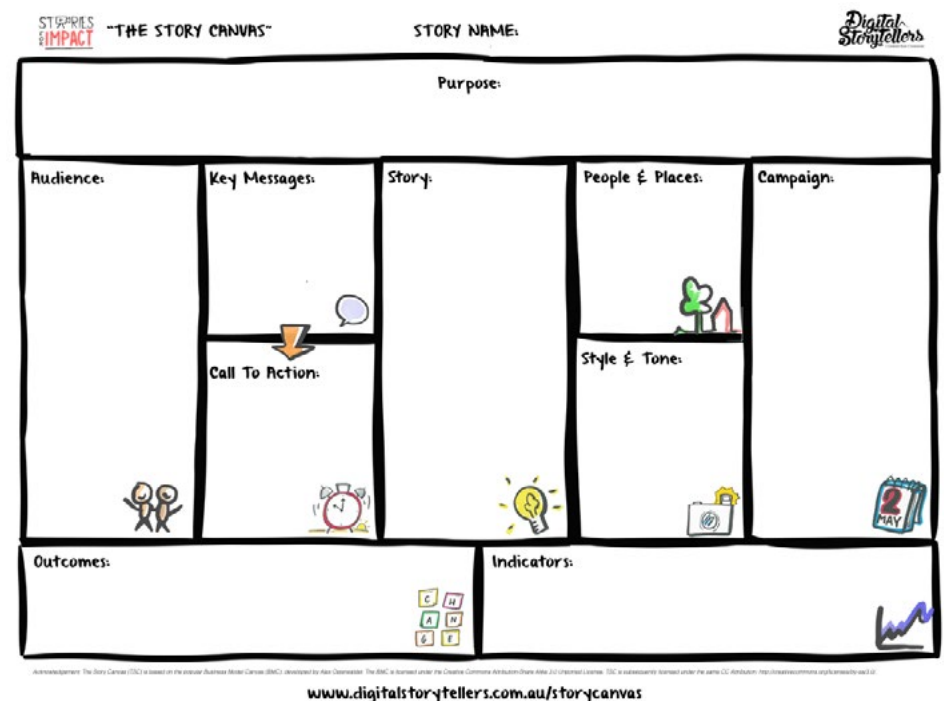
Make, edit and share your short films

1. Plan your short film: Digital Storytellers Canvas

To put together a great short film, you need to do some planning! Create a storyboard with the help of the Story Canvas. It's made by Digital Storytellers, who remind us that: 'To achieve these results, storytelling must be strategic... The most important work (and the most time consuming) is the task of simply

discovering the best, and most impactful, story to tell ... We've distilled our steps for developing awesome stories into an easy to follow process, The Story Canvas. The Story Canvas is based on the Business Model Canvas and is a simple to use tool to develop and iterate your story ideas.'

digitalstorytellers.com.au/the-story-canvas/



2. Learn about film, photograph, storytelling: ABC Open Tips & Tutorials

This is a comprehensive resource created by several ABC broadcasters, freelance writers, photographers and videographers. The site includes user-friendly tutorials on photography, video, writing, social media and storytelling.

See ABC Open: open.abc.net.au/learn

- » Quick tips: Shooting video with your smartphone
- » How to find music for your videos
- » How to make 360 photos with your smartphone
- » Telling the story behind a memorable photo
- » Free apps to help you make a slo-mo video on your device
- » Dynamic camerawork for video: Teaches you how to pan, track and tilt, follow, pull back and move in.

3. Edit your film, for free!

There are several free or low-cost beginners video editing options, and many are pre-installed on your computer.

- » iMovie (pre-installed on Apple computers), Windows Movie Maker (pre-installed on all Windows PCs or free download from Microsoft), and Adobe Premiere Elements (\$145 a year). You can find countless videos on YouTube explaining how to use these video editing tools.
- » Replay (On your phone (iOS)): Edit video clips, add text, and insert music and photos from your camera roll. Great for social media: replayapp.com
- » WeVideo: Cloud-based video editing platform. You can get creative and include animation, voice overs, etc. See wevideo.com.

4. Share your film!

- » Embed short clips into Facebook.
- » Upload to Youtube (see above for the benefits of registering as a charity).
- » Do you want your video to go viral? sumac.com/how-to-make-your-non-profit-video-go-viral/

Make, edit and share audio stories and interview

1. Learn about how to do audio recording well

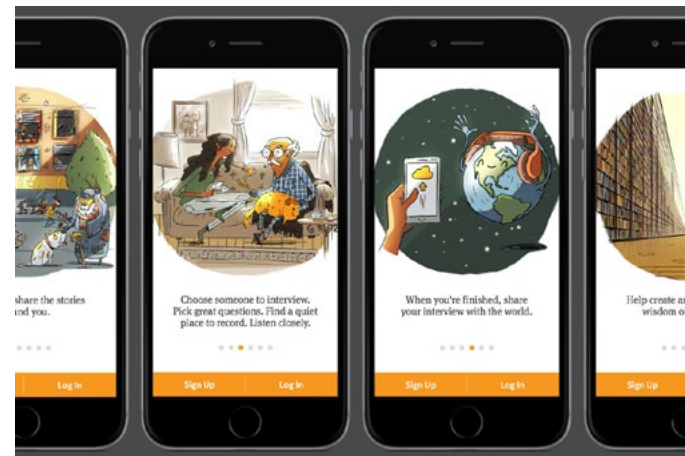
Check out the ABC Open website mentioned earlier. Also see Transom for great tips and tricks; transom.org/topics/tools/

2. Record the interview

StoryCorps is a free mobile app that allows you to ‘record and archive a meaningful conversation with anyone, anywhere’. ‘The app guides users through the interview experience, from start to finish with easy-to-use tools to help you prepare interview questions, record high-quality conversations on your mobile device...’ StoryCorps DIY: storycorps.org/participate/storycorps-diy/

3. Edit your audio for free!

Audacity is often considered the best free audio editor. It’s created by volunteers, it’s open-source and it works on most operating systems. There are also plenty of tutorials online (see YouTube): audacityteam.org/



A picture of StoryCorps interview in progress. (Image: StoryCorps)

So after all of this, how is your communication plan going?

Google Analytics: "How can you know what's resonating unless you monitor metrics? Use Google Analytics to set benchmarks, gauge your PR metrics, track page views, and make strategic budget allocation decisions." https://marketingplatform.google.com/about/analytics/#?modal_active=none

Google Alerts: You can also use Google Alerts to see if your organisation has cropped up in any web stories. google.com.au/alerts

For a fee

Images

iStock is owned by Getty Images and has 'high-quality, royalty-free visual content for a low cost' (istock.com). Also visit Dreamstime and Shutterstock.

Shorthand

A platform to tell beautiful, 'fully-responsive' digital stories, with impressive design, across the audience's devices (phones, desktop, tablet). Great for telling engaging features stories. See, for instance, WWF's work on Shorthand: shorthand.com/case-studies/wwf A basic annual subscription is around \$200.

shorthand.com/

Video editing software

Adobe Premiere Pro, and Final Cut Pro X (for Apple computers) are more expensive and technically demanding, but will give you more features for film

Digital Storytellers short courses

The Australian business specialises in training non-profits to make short, sharable, impactful films for social media. They have several public workshops (online and in person), introductory to advanced: digitalstorytellers.com.au/



ISS Institute
Level 1, 189 Faraday Street
Carlton VIC 3053

T 03 9347 4583
E info@issinstitute.org.au
W www.issinstitute.org.au

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