NNOCCI is a partnership between informal science educators, climate scientists, cognitive & social scientists and evaluators whose mission is to change the world through better communication techniques around climate change.
The Opportunity: Audience

130 Million Visitors a Year
The Opportunity: A Primed Audience

70% percent of visitors agree that the most important environmental issue confronting the world is climate change. (NWZAA, 2009 & Ocean Project 2009)

75% of visitors believe zoos & aquariums should make recommendations for how the public can protect the environment. (CLiZEN 2012)
Knowing how people think, helps us construct and deliver our messages for highest impact.
Framing and Reframing

When communications are effective, people can see an issue from a different perspective

BUT

When communications are inadequate people default to the pictures in their heads, Cultural Models…
What trends do you notice in these pictures?
Our researchers have identified several shared cultural models when the topics of ocean and climate change were brought up.

Each cultural model comes with positive and negative cues.

Coral reef ecosystems are breaking down...

Nature has ways of taking care of herself. I’m sure the corals will be fine.

That must affect animals throughout the food chain – including me!
The Swamp

**Oceans**
- Ocean and land= separate worlds
- Oceans are vast; Drop in the bucket
- Heal themselves
- All on the surface
- Ocean acidification- what’s that?
- Ocean is too big to be harmed
- Oceans as a resource
- Basis of life
- Oceans support humans

**Science**
- How do scientists know that?
- New study every week
- My observation is as good as yours
- “Scientists say…”
- Science is innovation

**Consumerism**
- Eat it while you can!
- Bottomless grocery store
- Jobs vs. environment
- Cost/benefit thinking
- Ecosystems are valuable resources

**Pollution**
- Ocean problems=material pollution
- The root of all environment problems
- Just clean it up
- Solution=Recycling
- Carbon dioxide=carbon monoxide
- Human caused

**Nature**
- Nature works in cycles
- Nature is self-correcting
- Change is natural/Fatalism
- Mother nature
- System? What system?
- CO₂ is natural, therefore it is good
- Web of life/It’s all connected
- Shared fate

**Climate Change**
- Climate=yearly weather patterns in place
- “It’s about the ozone, isn’t it?”
- Big, Scary depressing
- Climate change = warming
- Melting ice
- What can I really do?
- Something needs to be done

**Public Affairs**
- Two sides to every story
- Even if we do our part, other countries won’t
- Politics as usual
- Individualism
- Government is good at protection
- Americans are problem solvers
- Civic Responsibility

What’s in the swamp of...

Ocean & Climate Change
Let’s see it in action:

Canada Video 1 - [https://vimeo.com/152928342](https://vimeo.com/152928342)
Password: Trigger1

Canada Video 2 – [https://vimeo.com/152928670](https://vimeo.com/152928670)
Password: Trigger2

NNOCCI is committed to learning, practicing and training others in Strategic Framing so that we can change the public conversation to a more productive, citizen minded, creative dialog on climate change.
The basic mechanism of climate change can be taught effectively in 60 seconds or less.

But there is hope!
4 elements of Strategic Framing:

• **TONE** establishes the issue as explanatory and reasonable and for ‘everyone,’ not just those who already agree with the point of view being expressed

• **VALUES** remind people of what’s at stake or what they already care about that the issue connects to

• **EXPLANATORY CHAINS AND METAPHORS** enhance peoples’ understanding of processes and mechanisms in ways that help them to think through productive solutions

• **SOLUTIONS** present people with ways they can join others to bring forward systemic change that addresses the root cause of the problem
Crisis

- May capture attention but can’t hold it
- Can trigger confirmation bias
- Can promote belief that circumstances are unchangeable
- Can result in compassion fatigue
Recommended Values for Framing Climate and Ocean Change

Protection

Responsible Management
“We believe in protecting and preserving the world’s unique habitats, like the estuary you see here. By taking action now to ensure that this habitat will be here for the animals that live in it, we are also protecting future generations from the increased storms and floods we can expect to experience due to the changing climate...”
Explanatory Metaphors

• Make an abstract idea concrete and sticky
• Help people understand the mechanisms at work
• When linked to causes and impacts they motivate productive consideration of multiple solutions
Heat Trapping Blanket

- The atmosphere is like a blanket that surrounds the earth.
- When we burn fossil fuels, we add CO₂, which thickens the blanket.
- The thicker the blanket gets, the more heat it traps.
- The blanket effect leads to warming, which disrupts the climate.

When we burn fossil fuels for energy, we add more and more carbon dioxide into the atmosphere. This buildup acts like a blanket that traps heat around the world, which disrupts the climate.
Horseshoe crabs have been around for ~445 million years, yet over the last decade we’ve seen a significant drop in their population. As we burn fossil fuels, such as oil and natural gas. We pump more and more CO2 into the air. This rampant CO2 acts like a heat trapping blanket, trapping heat that would otherwise escape. This warming is causing glaciers to melt and seawater to expand which causes sea level to rise. It’s projected that here in NJ sea level will rise 17 inches by 2050. When sea levels rise horseshoe crabs lose beaches they need in order to spawn and lay their eggs.
Community Level Solutions:
What kind of collective, civic action are we supporting?

<table>
<thead>
<tr>
<th>Energy Shift</th>
<th>Energy Efficiency</th>
<th>Change the Conversation</th>
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<tbody>
<tr>
<td>Moving from fossil fuels toward renewable energy</td>
<td>Reducing demand for and use of fossil fuels</td>
<td>Engaging in civic discourse</td>
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NNOCCI’S Three Theme” Strategy for Solutions Stories
### Talking about systems change...

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<tr>
<th>Instead of...</th>
<th>Take it up a level...</th>
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<tbody>
<tr>
<td>“We can save energy by reducing the amount we drive. Because our cars run on a fossil fuel that adds heat-trapping gases to the atmosphere, we can all do our part by walking, biking, or taking public transit.”</td>
<td>“One sector of our society that uses a lot of energy is transportation – moving goods around the world and across the country, and getting people to and from the places they need to go.”</td>
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<tr>
<td>“Changes to our own homes can make a huge difference by reducing energy that’s wasted through lack of insulation. Did you know you can get a free home energy audit from the city?”</td>
<td>“One sector/part of our society that uses a lot of energy is buildings – constructing, heating, cooling, and lighting the places where we all work and live.”</td>
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Take-Away #1:

Well-framed conversations have power.

Well-framed conversations:

(1) get people to think like citizens and
(2) activate networks of supporters.
Take-Away #2:

*Social change is a marathon, not a sprint.*

Conversations happen on multiple levels with multiple stakeholders over time.
Take-Away #3:

Skilled framers in science centers are key to shifting the public conversation on climate.

It is time to wake up the “sleeping giant.”
Thanks!

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• http://storyofstuff.org/movies/story-of-change/
• http://www.nnocci.org/
• www.climateinterpreter.org
• http://frameworksacademy.org