

Learning to communicate with confidence about climate change

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It's important to think about the stories that we tell.

Lessons learned

- We're in a good place.
- You are a "trusted messenger."
- You don't have to be a climate scientist (but it helps to know a little bit).
- Values connect us to our audience.
- Art is a secret weapon.
- Great resources are all around.
- Maryland is already a leader in climate action.

We are in a good place.

- Global Warming's Six Americas study
 - Alarmed
 - Cautious
 - Concerned
 - Disengaged
 - Doubtful
 - Dismissive
 - 2016: 75% in the top three
 - 2018: 72% (election)
- Yale Climate Opinion Maps
 - 70% think climate change is happening
 - ~52%? think it is caused by humans
 - Average American has a 6th grade science understanding
 - ~82%? Support funding for renewables
 - 79% of adults think that schools should be teaching causes, consequences, and possible solutions for climate change
 - 36% of adults discuss global warming at least occasionally
 - Maryland: 37%
 - 22% of adults in Maryland/USA hear about climate change in the media at least once a week
- We are not talking about climate change enough.
- We are missing an opportunity.

Reflection

- What are your fears about climate change?
- Tell us about a time you had a difficult conversation about climate change.
- Share a time you've had a hopeful conversation about climate change.
- "It's hard to look away from a dumpster fire and look for ways to put it out."

You don't have to be a climate scientist, but a little understanding goes a long way.

- Remember: We're really special. We're a Goldilocks planet.
- Our atmosphere is everything. It is why we have life on this planet.
- Weather vs. climate
 - Climate is what's in your closet. Weather is what you wear each day.
 - Person walking their dog.
 - Climate is the coach. Weather is the athlete.
 - Climate change is like our earth on steroids. Was this event caused by climate change? Well you have a baseball player who is really good and hits a lot of home runs. Then he juices and hits them all out of the park. You can't necessarily attribute one to juicing or just because he's really good.
- Global warming: is the increase of the Earth's average surface temperature due to a buildup of greenhouse gases in the atmosphere.
- Climate change: is a broader term that refers to the long-term changes in climate. A suite of changes.
- Mechanisms of climate change: Have a basic understanding yourself
- How do we know it's warming? 10 indicators of a warming world (NOAA)
 - Land surface air temperature
 - Sea-surface temperature
 - Marine air temperature
 - Sea level
 - Tropospheric temperature
 - Ocean heat content
 - Specific humidity (water vapor)
 - Snow cover, sea ice extent, glacier mass
 - Stratospheric temperature
- Conversely, we would expect the following indicators to decline: snow cover, sea-ice extent, glacier mass, and stratospheric temperatures. How do we know it's us?
 - Ice cores have air bubbles trapped in there. Those bubbles are a snapshot of the air when the ice froze.
 - Isotopes: Natural CO₂ has three isotopes (carbon 12, 13, 14). When we burn fossil fuels, we burn away carbon 14. When we look at those bubbles, we see no or less carbon 14. When we look at older ice, we see all three isotopes. As we move through time, we see less and less carbon 14.
 - Now: 411 ppm of carbon dioxide. We *want* to get to 350 to have a healthy, stable climate system.
- Keep things local: Changing Chesapeake: in the past 100 years
 - **Growing season length:** increase by 30 days; occurring earlier, ending later
 - **Frost days:** 30 fewer annually than 100 years ago; seeing fewer things die
 - **Warm tropical nights** (stress index; reset, when the temperature drops below 68 F; lowers resilience): 30 days
 - **Warm precipitation:** 5.2-16.8 mm more precipitation per decade (12% increase over last 100 years)
 - SAV, seasonal cues, human health impact, nutrient pollution

You are a trusted messenger

- Think of a message that stuck with you.

- Slow is smooth and smooth is fast.
- Long on good intentions, short on follow-through.
- You get further with honey than you do with vinegar.
- Brevity is clarity.
- What is your sticky message when it comes to climate?
- What we say matters. How we say it matters too.
 - We want to avoid a crisis tone. That shuts people down.

Values connect us and make it personal. We need to change the story we are telling.

- NNOCCI
 - Zoos and aquariums: 1,500 informal science centers are visited by 61% of the us population. Working together we can influence other networks and communicators. We can all start talking in the same language.
 - “Ask me about climate change.”
 - Make sure they all use the same terminology, use the same language.
- “Hole in the head” guessing game.
 - Each of us doesn’t know everything about something.
 - We fill in these gaps with cultural models.
 - We guess. Heuristics.
 - “Why don’t the greenhouse gases escape through the ozone hole?”
 - Cultural models: cognitive shortcuts
- The Core Story of Climate Change
 - Why does this matter to society?
 - The “what?”
 - Values
 - How does it work?
 - The “so what?”
 - Sticky messages
 - How do we improve the situation?
 - The “now what?”
 - Solutions
- Values: Why does this matter to society?
 - **Protection:** “X” matters because we have a duty to safeguard the wellbeing of people and places
 - **Responsible management:** “X” matters because taking common steps today is in the best if interest of future generations.
 - “People protect what they love.” -Jacques Coustoe
- “Hole in the head”
 - How does it work?
 - Many climate communications focus on the impacts of climate change and do not specify how it happens.
 - People are more likely to help is they understand why it happens.
 - Good explanation will
 - Walk people through the issue.
 - Connect the science to the solutions and the story to the subjects at hand.
 - Motivate productive consideration of multiple solutions.

- Gives people a role in the story.
 - Explanatory metaphors
 - Make an abstract idea concrete and sticky.
 - Helps people understand
 - Links causes to impacts and solutions.
 - Sticky message (explanatory metaphor): practice!
 - Heat trapping blanket
 - Regular vs. rampant carbon dioxide
 - Modeling. People see things that are possible (like backyard chickens) and they do it.
- What is a solution?
 - Find a way to bring in the social math.
 - Social math: When you have a fleet of green busses in Howard County, you take out X gigatons of CO2. Huh? It's like taking X cars off the road.
 - Adaption: Rain garden
 - Mitigation: MWEEs

What are the things you can support at the county level, at your HOA. A suite of solutions in your back pocket. Coreen has a Pinterest board. Changing lightbulbs: That's good, but it's not enough.

Art helps.

- "That famous picture of the earth from outer space that Apollo beamed back in the late 1960s—already that's not the world we inhabit; its poles are melting, its oceans rising. We can register what is happening with satellites and scientific instruments, but can we register it in our imaginations, the most sensitive of all our devices?" -Bill McKibben
- Can art really create emotions that inspire people to think in new ways in this care to bypass a skeptical and politicized narrative?
- Art inspires empathy.
- Think about it, how much art have you encountered that's a passionate plea for a do-nothing approach to climate change?
- Art as a medium for understanding and affecting change.
- Wonder and "I wonder?"

People learn from stories.

- Data as a map and science as a storytelling piece.
- Ron Chernow > Lin Manuel Miranda > HAMILTON > Replace \$10 > Replace \$20
- "If you see an osprey, an eagle, a brown pelican, it's because someone told a story." Rachel Carson, *Silent Spring*
- Don't forget the power of humor.

Great resources are all around.

"There are two ways of spreading light: be the light or be the mirror that reflects it."

Discussion

When you allow people to ask, "How does it affect me?" they really tune in.

Resources

- [How Culture Shapes the Climate Change Debate](#)
- [Global Warming's Six Americas study](#)
- [Yale Climate Opinion Maps](#)
- [EcoAmerica.org](#): talking to faith-based communities about climate change, business leaders
- YouTube: [Global Weirding](#), Katherine Hayhoe
- [10 indicators of a warming world](#) (NOAA)
- [NASA vital signs of the planet website](#)
- [Changing Chesapeake](#)
- [ClimateInterpreter.org](#): One-day training
- Jill Pelto, [glaciogenic art](#)
- Greg Johnson, [IPCC report haikus and art](#)
- [Greg Kahn climate photography](#)
- [ClimateVisuals.org](#)
- [Warming stripes](#)
- [Tempestry Project](#)
- [Story spine: Pixar](#)
- [EcoAmerica.org](#)
- [Yale Program on Climate Change Communication](#)
- [Maryland Commission on Climate Change Fact Sheets](#)
- [Artists and Climate change](#)
- [Earth.nullschool.net](#)
- [Climate Central](#): national, state, and city specific data
- Frame Works Institute: [Climate change](#)
- [How an Instagram hashtag is inspiring thousands to protect the oceans](#)
- [Canadian company earns one of Instagram's most-liked posts of all time](#)