Communication strategies: carbon, energy, and climate

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CARBON, ENERGY, AND CLIMATE CONFERENCE
SEPTEMBER 26-28, 2012
MICHIGAN STATE UNIVERSITY W. K. KELLOGG BIOLOGICAL STATION
Communication is a two-way system, where both the source and the receiver must be listening.

For a summary of effective communication principles, see:
http://wateroutreach.uwex.edu/beps/kacommunications/principles.cfm
Climate Change . . . the challenge

- How people perceive climate change
- How people understand climate science
- Individual perception of risk
- Individual adaptability
Some ideas . . .

- Three guidelines
- Behavior change considerations
- NRC climate education workshop
- Practice activity
- Climate communication resources
  - But few addressing specific audiences or topics
Recommendations informed by Elaine’s work at ERC

ERC MISSION

- Empower individuals and communities to make conscious, well-informed decisions about their environments and the social processes involved in caring for those environments.

- Programs connect state, regional, national outreach initiatives.
ERC APPROACH

**ERC focus:**

- Use applied research and outreach techniques
- Focus on human dimensions and connections – agriculture, environmental management, natural resources, water, and watersheds
ENVIRONMENTAL EDUCATION

Community-based environmental education and outreach – sample projects

○ Develop national curricula for USDA, USDI, US EPA, and others
  • Conservation USA
  • Holding onto the Green Zone
    ✓ Youth Action Guide and Leader Guide
ENVIRONMENTAL EDUCATION

National Extension Water Outreach Education

Facilitating access to resources and best education practices

- Best Education Practices
  - Use BEPs
  - Educator resources

- Increasing Citizen Involvement
  - Target Audience Research Database
  - Self-study modules

wateroutreach.uwex.edu
Climate Change . . . the challenge

- How people perceive climate change
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- Individual perception of risk
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Climate change perceptions

CONVERSATION

- Who is your audience?
- How do individuals perceive potential climate change impacts?
Climate change understandings

CONVERSATION

- Who is your audience?
- How do individuals understand climate change science?
Climate change responses

• The Six Americas
  o Unique segments of the American public
  o Each responds to information about climate change in distinct ways

• Alarmed
• Concerned
• Cautious
• Disengaged
• Doubtful
• Dismissive

Maibach, Roser-Renouf, and Leiserowitz, 2009
Climate change & risk perception

• A few tips, from research . . .
  o Feelings – about vulnerability and risk – seem to be instrumental in moving (or not moving) people to action.
  o Risk perceptions are influenced by associations and emotions more than by analytic processes
    ✷ Reports about incidences of “mad cow disease” elicit greater fear than reports about incidences of bovine spongiform encephalitis

APA, 2010
Perceived characteristics of climate change may lead citizens and policymakers to underestimate the magnitude of the risks.

- “natural”
- not new

The absence of “feeling at risk” may be the result of psychic numbing or denial in the face of overwhelming and uncontrollable risk.

APA, 2010
Climate change & risk perception

- Strongest predictors of climate change acceptance and concern can be loosely characterized as:
  - environmental values,
  - environmental identity,
  - belonging to environmental groups, and
  - having pro-ecological values versus anthropocentric values.

- Second and third strongest predictors:
  - political ideology and party identification.

McCright, 2010
Climate change & risk perception

- **Communicating risk**
  - Technical information about risk, as provided in news stories, has little if any impact on the audience.
  - What information is alarming or reassuring is a matter of opinion.
  - Effective communication requires:
    - Personalized information, in a human context.

Sandman, 1994
Behavior change recommendations are most effective when they are:

- Simple
- Similar
- Successful
Behavior change . . . considerations

- Investigate your audience
- Know how to predict behavior intentions
- Offer solutions that lead to observable results
- Use quality communication and education techniques

  ◦ Resource: wateroutreach.uwex.edu
Analyze potential for behavior change

- **Keep these ideas in mind**
  - A behavior is most likely to occur if:
    - A person has a strong intention to perform the behavior
    - A person has the necessary skills and abilities
    - There are no constraints preventing behavioral performance

Keep your eye on the ball!
Analyze potential for behavior change

**Adaptive capacity – opportunity or constraint?**

- Does the individual or group have access to skills or resources for
  - Protection?
  - Mitigation?
  - Coping?

Safi et al, 2012
Analyze potential for behavior change

- An integrative model of behavior change
  - Foundation for current models for communicating risk and encouraging adaptive behavior
  - A dynamic of inter-related factors that predict an individual’s intention to adopt a particular behavior
  - Indicates factors to investigate prior to developing a communication or outreach initiative
Integrative model of behavior

**Background influence**
- Past behavior
- Demographics and culture
- Attitudes towards targets (stereotypes and stigma)
- Personality, moods & emotions
- Other individual difference variables
- Intervention exposure
- Media exposure

- Internal and external factors
Integrative model of behavior

- Behavior beliefs & Outcome evaluations
- Normative beliefs & Motivation to comply
- Control beliefs & Perceived power
- Attitudes About a specific behavior
- Norms Related to a specific behavior
- Self-efficacy

Theory of planned behavior

Intention
Integrative model of behavior

Other considerations

Environmental factors

Intention

Skills and abilities

Background influence

Attitudes about a specific behavior

Norms related to a specific behavior

Self-efficacy
Integrative model of behavior

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  - Self-efficacy
  - Intention
  - Skills and abilities
  - Environmental factors

Source: Fishbein & Cappella, 2006
Analyze potential for behavior change

- What does the individual believe
  - about the specific behavior?
  - about his or her ability to perform the behavior?
- Can/does the individual perform the behavior?

- What do other people believe about the behavior?
  - and do they perform it?

- What does the individual think that other people think?

TRY IT!
Findings from
NRC Climate Education Workshop

Workshop explored:

- Goals of climate change education
  - as defined in different fields and for various audiences;
- Indicators of success
- Groups pursuing various goals
  - including segments of the population that tend to dismiss the reality of or the human causes of climate change
NRC Climate Education Workshop

- National Wildlife Federation initiative
  - Use local rather than international or even nationwide examples of global warming’s effects,
  - Stay sharply focused on habitat and wildlife when educating about problems and solutions, and
  - Have a format that allows ample time for participants to describe their own observations and experiences.
Ohio Interfaith Power and Light initiative

- Work within the values of the community
- Touch people through their hearts rather than solely through their heads
- Recognize that multiple values matter
- Consider overlapping concerns
  - For example, frame climate change not only as a moral issue but also as a way to save money.
Pew Center on Global Climate Change

Make an Impact—Save Energy, Save Money, Save the Environment: business training initiative

- Frames climate change in light of employee concerns: including energy security, energy independence, saving money, or stewardship of the earth.
- Provides information on energy use and tools and resources to help make positive changes.
- Information is localized and distributed by company managers and other community members.
**NRC Climate Education Workshop**

- **Climate Central (weather based information)**
  - A nonprofit science and journalism organization that tries to localize the issue of climate change
  - Storytelling is the only way to cultivate and grow an audience that is both engaged and passionate.
  - Know your audience and what it cares about.
  - Build a strong, personal narrative that speaks to your audience.
  - Provide clear, actionable takeaways.
• Storytelling
  o Align climate change education efforts with local needs, values, and interests by using meaningful and locally relevant stories.
  o Highlight tangible events and draw on the audience’s experience.
  o Examples:
    ▶ http://climatewisconsin.org/
      o 12 brief video stories
    ▶ Farming in WI: http://climatewisconsin.org/story/farming
Community based education (Extension model)

- Identify communities (of place, interest, identity, practice) with a stake in climate change
- Develop learning and action networks among scientists, educators, and “communities”
- Promote action-learning and knowledge-action strategies
- Monitor group capacity to adapt over time.
Rural Nevadans, including ranchers and farmers

Are one of the most vulnerable groups among Nevada residents as a result of their intensive reliance on scarce water resources for their livelihoods.

Their intimate relationships with natural resources make their climate change-related observations, risk perceptions, and beliefs worth noting.

Climate Risk Practicum

• CONVERSATION
  ○ Select a water conservation behavior, for discussion.
    ✷ What behavior did you choose?
    ✷ Who is your target audience? Imagine:
      ○ What does the individual believe about the specific behavior?
      ○ What does the individual believe about his or her ability to perform the behavior?
      ○ Can/does the individual perform the behavior?
      ○ What do other people believe about the behavior? and do they perform it?
      ○ What does the individual think that other people think?
Nevada study findings

- Physical vulnerability alone also does not impact risk perception.
  - Farmers/ranchers who live in a more water stressed area, and thus are more vulnerable to possible climate change-based drought, perceive the risk of climate change the same as those who live in less vulnerable areas.
- Both sensitivity [to a hazard] and adaptive capacity increase risk perception.
Nevada study findings

• Risk perception
  o Age is not a significant determinant.
  o Gender plays an important role in shaping perception.
  o General beliefs are the most prominent determinants of risk perception:
    ▪ political orientation
    ▪ climate change-specific beliefs such as believing in the anthropogenic causes of climate change
    ▪ connecting the locally observed impacts (in this case drought) to climate change
Communicating about: carbon, energy, & climate

- Don’t forget your sense of humor!
Climate Communication References & Resources


- Climate Change Collection, http://serc.carleton.edu/climatechange/index.html


Climate Communication
References & Resources

- National Extension Water Outreach Education. http://wateroutreach.uwex.edu
- TalkingClimate.org