Floods, Communication, and Climate Change

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CSU Water Center Meeting
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Background: How People Perceive Climate Change Through Weather Events

- TV broadcast using a trusted source (weathercaster) and a familiar analogy increases risk perceptions of global warming among viewers

Objectives and Goals

• Exploration of communication around extreme weather events and perceptions of climate change

• How does communication use during the flood event play a role in how people perceive, discuss, and seek information about climate change?

• Data sources:
  • Content analysis of social media discussions (Twitter)
  • Survey of Coloradans
Twitter posts mentioning Colorado floods in the context of climate change (n = 4,085)

Sept. 18, 2013 — Content from multiple sources (e.g., Mother Jones, Salon, Grist.com, DemocracyNow.org) discuss the potential impact of climate change on the floods.

Sept. 26, 2013 — Christian Science Monitor publishes article questioning influence of climate change, which is retweeted by other sites (e.g., junkscience.com). Treehugger.com posts article supporting influence of climate change, which is retweeted multiple times.

Oct. 10, 2013 — ThinkProgress.org profile on flooding impacts to the Four Mile Canyon burn area is published, shared/retweeted.
Preliminary Analyses of Themes in Social Media Discussions

- **Posed connection to climate**
  - “Green News: Colorado Flooding: Did Climate Change Play A Role In Recent Disaster? http://t.co/blSJloxLi8”

[link to Huffington Post article]

- **Opinion expression: Belief or Denial**
  - “Global warming causes extremes. Remember how Colorado has suffered severe droughts and now it's flooding there? #boulderflood #GlobalWarming”
  - “Now watch what happens. The AGW propagandists screaming eternal drought in Colorado last year, will claim the flooding now is climate change”

- **Opinion expression in conjunction with information sharing**
  - “I'm weary of connecting specific weather events to climate change, but the Boulder floods should be an eye opener. http://t.co/VPOAKfchcj”

[link to article on www.climatecentral.org]
Predicting Engagement Outcomes with Survey of Coloradans

- Flood Experiences
- Demographics
- Political Ideology
- Weather

Social Media Use For the Event

- Information Seeking
- Interpersonal Discussion
- Climate Change Perceptions

News Media Attention to the Event
Project Outcomes

- Paper submission to Society for Risk Analysis Annual Conference – Risk Communication Division (Denver, December 2014)
  - Major themes and discussion in social media data (due May 10)

- Paper submission to International Environmental Communication Association Annual Conference (Boulder, CO, June 2015)
  - Analysis of model using survey data (due September 2014)

- Manuscript submissions to *Weather, Climate and Society* and *Science Communication*
Environmental Topics in Tweets During the Flood

RT @FrackAction: What happens when flooding meets #fracking? It's bad - see CO: http://t.co/UCB3MLj2aU @NYGovCuomo #DontFrackNY

[link to Denver Post article]
Next steps: Exploring public perceptions around water quality, fracking, environmental communication

- Exploring public perceptions of water quality across various areas of Colorado
  - Non-fracking vs. fracking
  - Flood-affected vs. non-flood affected

- Analysis of social media posts and news media articles
Future Directions

• Establishing cross-institutional collaborations
  • Dr. Kajsa Dalrymple, University of Iowa Water Sustainability Initiative and School of Journalism & Mass Communication
  • Dr. Leticia Bode, Georgetown University Communication, Culture & Technology Program

• Immediate Award Opportunities
  • Association for Educators in Journalism and Mass Communication – Mass Communication & Society Division Research Award
  • Georgetown University Environment Initiative (with Dr. Bode)

• Long-term Opportunities
  • Advancing Informal STEM Learning (AISL) Program at the National Science Foundation
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    [link to Huffington Post article]
  
  - Could climate change make massive fires and epic flooding more frequent in #Colorado? http://t.co/4VWZmxipk8
    
    [link to content from Rocky Mountain PBS]
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    [link to article on www.climatecentral.org]
  - “Harry delusional Reid Blames Colorado Floods On 'Climate Change'. http://t.co/00CDcCpJQT #moron #insane”
    [link to breitbart.com]
Preliminary Analyses of Themes in Social Media Discussions

• **Advocacy**
  
  – “RT @ForecastFacts: Watch: @SenatorReid talks #coflood, #climate: "Climate change is here. We're doing nothing about it.” http://t.co/yPeZ7o”
    [link to climatecrocks.com; retweeted by Twitter account for Climate Hawks Vote]
  
  – “Stop asking, start asserting  RT @ClimateDesk: Did climate change worsen the Colorado floods? http://t.co/xMKUuCpoig”
    [link to Mother Jones article; tweeted by @SallyStrange, blogger]