D-Lab: Water, Climate and Health

EC-Kit (for *E. coli* testing)  Hurricane Maria, Puerto Rico
Susan Murcott and Julie Simpson  Feb. 7, 2019

Middle: Courtesy of Bureau of Land Management. This image is in the public domain.
Definitions

Weather: the state of the atmosphere at a place and time with respect to it’s properties (temperature, wind speed, barometric pressure, etc.)

Climate: average weather, typically over a period of decades or longer, identified using statistical tests by changes in the mean and/or variability of its properties (temperature, wind, cloudiness, moisture, pressure, etc.)
My Extreme Weather Story

I spent my honeymoon in Poipu, Hawaii, which is where the eye of Hurricane Iwa struck on Nov. 23, 1982
Blue Hill Meteorological Observatory
April 1, 2017 Snow Blizzard!
Course Description

• 1st course at MIT (or almost anywhere) combining water, climate change and health
• Action learning, field trips
• Mix of student’s diverse disciplines, grads & undergrads, various nationalities, MIT, Harvard, Wellesley and more!
• **Climate Science:**

• **Climate Policy:** Guest lectures on global circulation models, carbon sequestration and game-playing with the C-ROADS World Climate Simulation to test emission reduction policies

• **Field trips:** Blue Hill Meterological Observatory, Hull Wind Energy Boston-Cambridge flood control, zero carbon home

• **Projects:** class solutions to water, climate change & health challenges.
World Climate Simulation

C-ROADS World Climate Simulation game to test global emissions reduction policies
Some Past Highlights
Arnold Arboretum – “Tree Architecture”
Boston People’s Climate Movement - April 29, 2017
Tidmarsh Restoration & Living Observatory

Transforming a 100+ year old commercial cranberry bog and restoring its natural river flow and wetlands to enhance habitat, biodiversity and coastal protection from sea level rise.

http://tidmarsh.media.mit.edu/