

UMass IGERT Offshore Wind Energy Program



Engineering, Environment, and Policy

Wind IGERT Seminar – Welcome meeting
and Value Focused Thinking

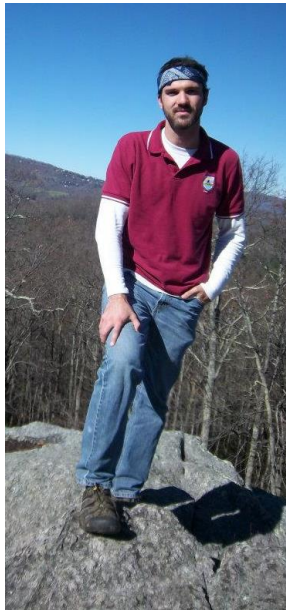
September 12, 2013

Erin Baker

Meeting Agenda

- Welcome to new IGERT students
- Plans for the year
- Talk: Value-focused thinking and offshore wind

New IGERT Fellows and Associates 2013



Continuing IGERT Fellows and Associates 2013



Seminar Series

Thursday, September 26, 2013 - 2:30pm

[Report Back on Offshore Wind IGERT Trip to Holland, May 2013](#)

Offshore Wind IGERT students and faculty

Thursday, October 10, 2013 - 2:30pm

[Wind Power Generation Electrical System Technologies and Challenges for Grid Integration](#)

Iqbal Husain, Electrical & Computer Engineering , North Carolina State University

Thursday, October 24, 2013 - 2:30pm

[Wind Power and Landscape: Global Concerns vs Local Costs](#)

Ana Isabel Afonso, Professora Auxiliar, University of Lisbon, Portugal

Thursday, November 7, 2013 - 2:30pm

[Offshore Wind IGERT student presentations](#)

Bob Darrow, "Wind Policy and Regulation"

Wing Goodale, "Cumulative Impacts of Offshore Wind Turbines"

Thursday, November 21, 2013 - 2:30pm

[Bioinspired Wind Farms](#)

John Dabiri, Professor of Aeronautics and Bioengineering, Cal Tech

Wednesday, December 4, 2013 - 2:30pm

[Offshore Wind IGERT student presentations](#)

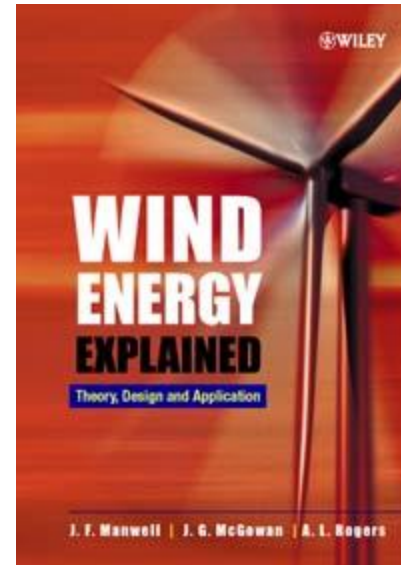
Micah Brewer, "Socioeconomic Optimization of Offshore Wind"

Andrew Allyn, "Offshore Windfarms and Marine Ecosystems"

Mini field trip



Development of on-line wind engineering course



NEWS??

OFFSHORE WIND AND DECISION MAKING

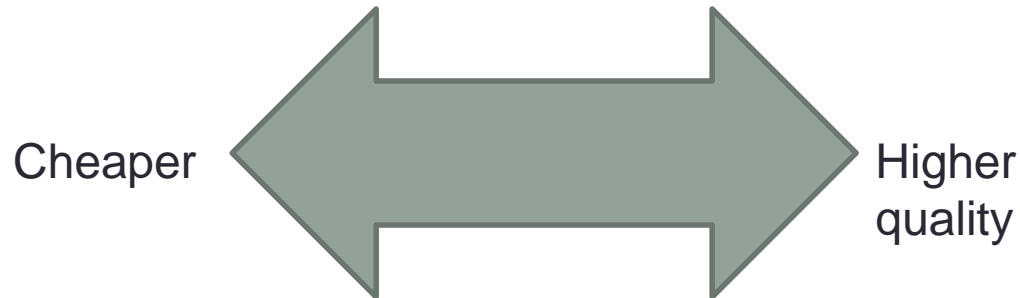
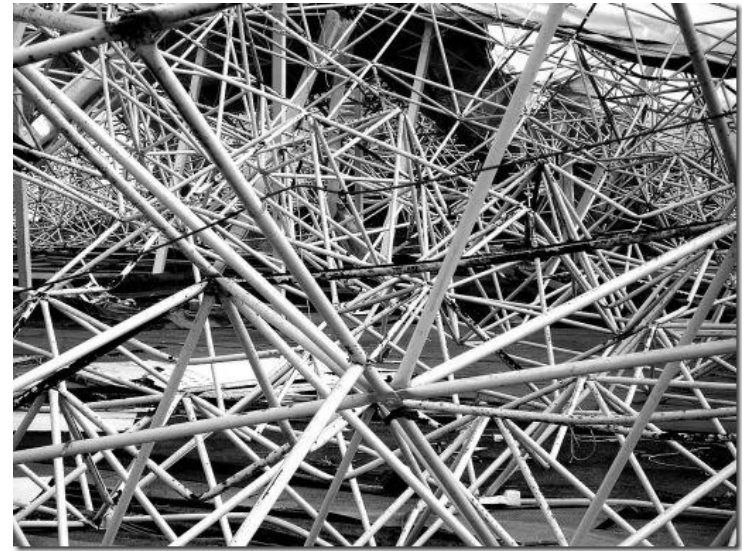
Value-Focused Thinking

Decisions

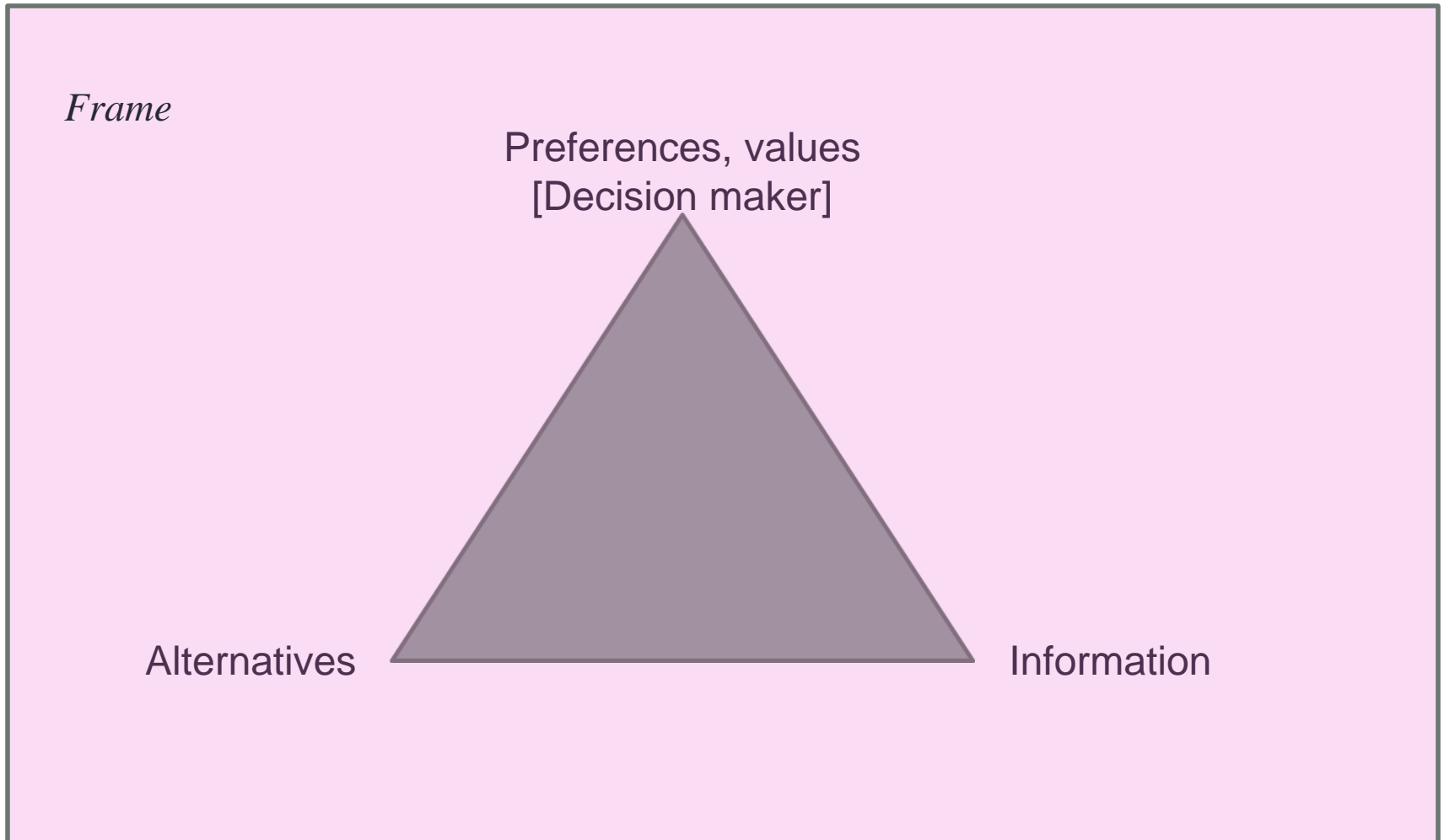
- How are they relevant to you as researchers?
- Why are decisions hard?



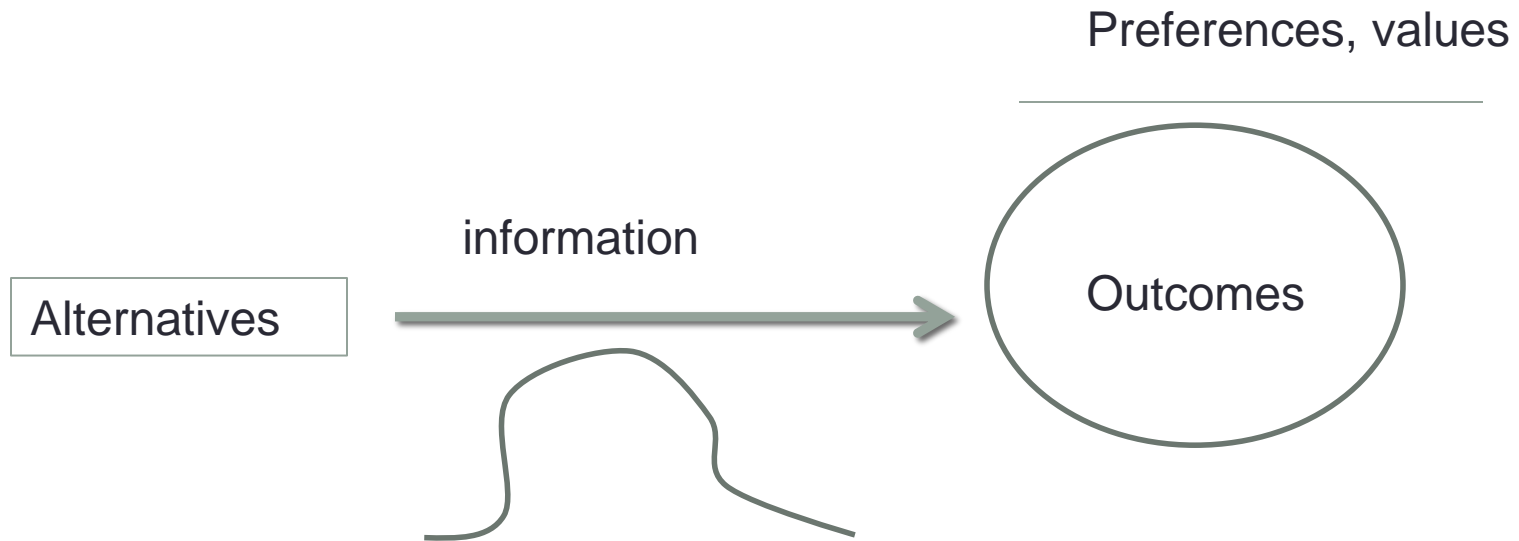
What makes decisions hard?



The elements of a decision



The elements of a decision



Example



Values

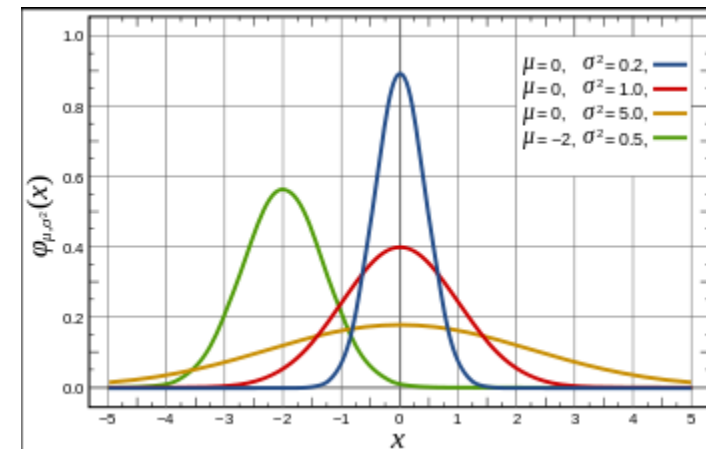
- Profits
- Biodiversity
- Viewshed

Alternatives

- No wind farm
- 10 MW farm in RI-MA wind energy area
- 100MW farm over horizon

Information

- What is the stream of profits from the 10MW farm?
- What are the biodiversity impacts of the 100MW farm?



Values: How can we decide which outcome is better? Example – impacts on wildlife

- Minimize impacts
- Minimize negative impacts
- Minimize negative impacts and maximize positive impacts
- Maximize population of a species
- Minimize deviation from status quo
- Maximize biodiversity

- Value-Focused Thinking by Ralph Keeney