

Dr. Danielle Endres, Department of Communication

Introduction

- Energy transitions rely on linkages between **science**, **society**, and **policy**
- Innovations in **Low-Carbon Energy Technologies (LCETs)** address energy security, climate change, and national policy
- Communication and democratic practices** are essential to creating just energy policies
- Analyzing the **internal communication** of LCET scientists and engineers reveals intersections between **technical and prudential rhetoric**
 - Technical rhetoric:** uses reasoning that relies on scientific proofs to produce scientific knowledge
 - Prudential rhetoric:** uses reasoning that relies on values and sociopolitical proofs to produce social knowledge

Energy Communication

- Studies: “the symbolic practices surrounding material experiences with energy resources, production, and consumption, including related practices of research, development, deployment, and policy” (Endres et al, 2016, p. 420)



Energy Democracy

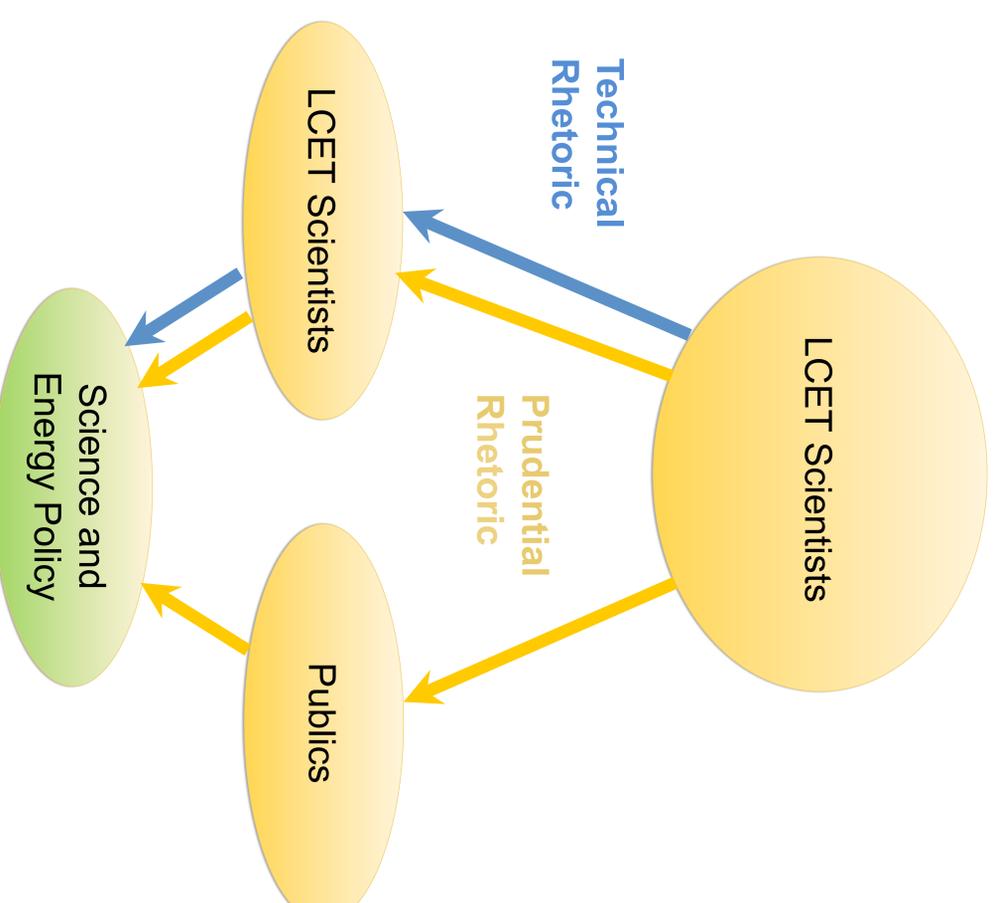
- An emerging social movement and academic area of study that seeks to promote democratic principles, public participation, and and local community involvement at all levels of decision-making about energy technologies

Composition

- “acknowledges that things have to be put together while retaining their heterogeneity” (Latour, 2010, p. 473-4)
- A framework for examining how LCET scientists and engineers seamlessly combine technical and prudential rhetoric in the production of scientific knowledge and policy development

Research Questions

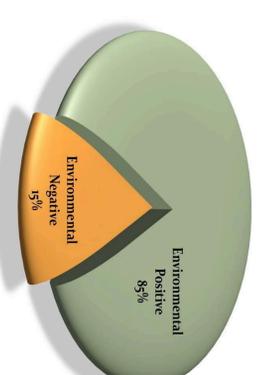
- RQ 1:** What forms of technical and prudential rhetoric do LCET scientists use when communicating among themselves?
- RQ 2:** How do LCET scientists compose arguments using both technical and prudential reasoning?
- RQ 3:** How do LCET scientists’ rhetorical compositions enable and constrain democratic energy policy?



- Previous science communication research** assumes that scientists and engineers use technical rhetoric in communication among themselves and prudential rhetoric in communication with non-scientist publics.
- This research presents a new model** in which scientists and engineers use both technical and prudential rhetoric in communication among themselves.

Selected Results

- Ethnographic observation of carbon sequestration, wind, and nuclear energy scientists demonstrates:
 - LCET scientists** compose blended technical and prudential arguments
 - Carbon sequestration scientists** actively negotiate shifts in technical and prudential boundaries in reactions to a framing shift from CCS into CCUS
 - Nuclear energy scientists** use contrasting conceptions of sociotechnical risk in arguments about nuclear accidents
 - Offshore wind energy scientists** view economics and environment as the most important factors in deployment
 - Nuclear energy scientists** present nuclear power as a highly pro-environmental technology



Future Work

- Continued analysis will inform how **scientists can influence policy** through blended sociotechnical rhetorical compositions
- Energy Democracy Symposium**, July 12-13, 2017, University of Utah

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