

# **Technology and Policy Analysis**

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# Historical context of S&T policy

# ESD.10 Meta-Learning Objective: Appreciate the political, social, and institutional context of technological systems

#### Current issues in technology and policy

#### Learning to see:

Goals (equity, efficiency, security, liberty)

Problem framing (symbols, numbers, causes, interests)

Policy solutions (inducements, rules, facts, rights, powers)

#### Learning to analyze:

Policy analysis toolkit (positions, powers, resources, channels, windows, technology constraints and enablers)

Economics (cost-benefit analysis, pareto optimality, utility)

Term Project (conceive, design, execute a policy research project)

#### Learning to articulate:

Writing (policy memos, policy research studies)
Dialogue (recitations, class discussions)
Presentation (term project, group homeworks)

"Real world" experiences of policy practitioners

Impacts of globalization



# Applying technology and policy analysis techniques

- Examine 6 drawers in the tool chest using an example technology and policy area
  - Telecommuting
- Read stage setting article



# "Drawers" in your tool chest for technology and policy analysis

**Issue Framing** 

**Stakeholders** 

**Technology/Policy Interactions** 

**Powers & Resources** 

**Channels** 

**Windows** 



# **Issue framing**

- What fundamental goals are in play?
- What are the bounds of the issue?
- How is the issue cast?
  - Economic (cost-benefit), safety (risk-benefit), interests (sides), control, conspiracy, victimization, causes



# **Stakeholders**

- Who cares about the issue? What are their motivations?
- What are their core beliefs and values?
- How are stakeholders arrayed on the issue?
- What coalitions exist?



# Technology and policy interactions

- How does the technology constrain or enable policy?
- How does the policy constrain or enable technology?





## Channels

- What channels exist for taking action on the issue?
  - Electoral, legislative, legal, administrative, media, grassroots...
- What are the costs and benefits of using various channels, now and in the future?



### **Powers and resources**

- Who has formal and informal power to take action?
- Who has resources to put to the issue?
- Who can influence those that take action / have resources?
- How can people with power/resources/influence be mobilized?



## **Windows**

- Which focusing events could be imagined that would put the issue on the agenda?
- Are there institutional routines for moving the issue?