Government Access to Personal Information

CYBR 4400/5400: Principles of Internet Policy, Lecture 6-6

Dr. David Reed, Technology, Cybersecurity, and Policy Program, CU Boulder

Today's Lecture

- Final exam: study guidance end of class Wed, April 29
  - Don't forget to "attend" class next week!
- Tips for Final Presentations and Papers
- Discussion of Snowden articles
- Unit 6 Wrap-up
- Course Wrap-up

Project Presentation Schedule
(10 minutes)

- Monday, April 27
  - Andrew
  - Ed
  - George
  - Pourna
  - Zachary
- Wednesday, April 29
  - Eloise
  - Kaylee
  - Nikhil
  - Madelyn
  - Will

Presentation and Paper Tips

Paper Tips

Include Executive Summary

- Short summary that appears at the beginning (~50 words)
  - Provides purpose of the brief or report
  - Why current policies are appropriate or need to be changed
  - Recommended actions
- Opinion + reason (because)
  - Example: The FCC should not have approved the Comcast/NBC merger because the merged company can now leverage its market power over broadband to control the content market.
- Written last and entices readers to go further…

Project Policy Brief

- Apply Interdisciplinary Policy Framework to address your topic
  - Section headings and paper content should clearly map to and include framework steps (e.g., core problem, policy objectives, technology impacts, etc.)
  - OK that some projects do not consider policy options, but critique an existing policy
- Paper is vehicle for providing policy advice
  - Straightforward document, not a literary production
  - Clearly organized (e.g., use signposts) with well-supported recommendation

Project Policy Brief

- Use 12 point Arial font, 1-inch margins, with double line spacing
- Identify references!!!!
  - Prefer use of MLA citation style putting references in footnotes, not endnotes
- Remember to use the spelling and grammar tools
- No page limit

Style

- Try to avoid passive voice
- Restructure sentence in actor —> action format
- Avoid vague, grandiose, undefined terms
  - “really important”, “long time”, “huge”
- **Overuse of the word “thus”**
  - Can often be replaced with “in order to”
- ~~Don’t~~ **Do not use abbreviations** in academic papers or policy briefs

Project Paper Rubric

Criteria	Ratings				Pts
Topic Relevance view longer description	25 pts **Exemplary** Identified the policy issues clearly or problems and left no unanswered questions.	22 pts **Proficient** Identified the policy issues well. Some unanswered questions may have remained.	20 pts **Partially Proficient** The policy issues were not clearly identified and many questions went unanswered.	15 pts **Incomplete** There was no clear evidence of policy issues and recommendations.	/ 25 pts
Innovative, critical thinking view longer description	25 pts **Exemplary** The treatment was innovative and showed critical thinking to analyze and develop policy recommendations that are well supported. A typical reader is likely to be persuaded by the paper to support the recommendations.	22 pts **Proficient** The paper was somewhat predictable and failed to demonstrate consistent and persuasive critical thinking to support policy recommendations. A typical reader may be persuaded by the paper to support the recommendations.	20 pts **Partially Proficient** There was little evidence that paper material demonstrated persuasive critical thinking to support policy recommendations. A typical reader would not be persuaded by the presentation to support the recommendations.	15 pts **Incomplete** The paper was ineffective in supporting policy recommendations.	/ 25 pts
Paper Quality view longer description	25 pts **Exemplary** The paper was well written with a clear writing style, few if any grammatical errors, appropriate citations, and clearly organized with care and attention to detail. Any shortcomings were unavoidable and due to reasonable limitations of scope or policy experience.	22 pts **Proficient** The paper had a few, non-critical, but avoidable shortcomings with regard to grammatical errors, organization, citation, and attention to detail.	20 pts **Partially Proficient** The paper had many avoidable and critical shortcomings with regard to grammar, organization, citation, and attention to detail.	15 pts **Incomplete** The paper was clearly made with no attempt at producing a quality project paper.	/ 25 pts
Connection to Interdisciplinary Policy Framework view longer description	25 pts **Exemplary** The paper accurately and comprehensively applied the steps of the interdisciplinary policy framework covered in class to develop policy recommendations.	22 pts **Proficient** Some aspects of the interdisciplinary policy framework covered in class to develop policy recommendations were not in evidence. Some steps may have been discussed in the paper, but not clearly. Some key citations may have been missing or may have been inaccurate or irrelevant.	20 pts **Partially Proficient** Some aspects of the interdisciplinary policy framework covered in class to develop policy recommendations were noticeably absent. A clear connection between the framework steps and the policy recommendations may not be readily apparent. Citations were not provided, inaccurate and/or irrelevant.	15 pts **Incomplete** There was no apparent connection between the interdisciplinary policy framework discussed in class and the finished paper. Poor quality citations.	/ 25 pts

Total Points: 0 out of 100

Presentation Tips

Presentation Tips

- Keep slides simple
  - 24 pt or larger font
  - minimal text
  - tables are useful
- Plan your 10 minutes wisely
  - Majority of time for results and recommendations

Presentation Tips

- Track to the Interdisciplinary Policy Framework
  - 1 slide on *focused* problem
  - 1 slide on policy objective
  - 1 slide on relevant tech trends
  - Remainder on policy options
  - Conclude with your recommendation

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Innovative, critical thinking view longer description	25 pts **Exemplary** The treatment was innovative and showed critical thinking to analyze and develop policy recommendations that are well supported. A typical member of audience is likely to be persuaded by the presentation to support the recommendations.	22 pts **Proficient** The presentation was somewhat predictable and failed to demonstrate consistent and persuasive critical thinking to support policy recommendations. A typical member of audience may be persuaded by the presentation to support the recommendations.	20 pts **Partially Proficient** There was little evidence that presenting material demonstrated persuasive critical thinking to support policy recommendations. A typical member of audience would not be persuaded by the presentation to support the recommendations.	15 pts **Incomplete** The presentation was ineffective in supporting policy recommendations.	/ 25 pts
Presentation Quality view longer description	25 pts **Exemplary** The presentation was well-planned and clearly produced with care and attention to detail. Any shortcomings were unavoidable and due to reasonable limitations of scope or policy experience.	22 pts **Proficient** The presentation had a few, non-critical, but avoidable shortcomings with regard to attention to detail.	20 pts **Partially Proficient** The presentation had many avoidable and critical shortcomings.	15 pts **Incomplete** The presentation was clearly made with no attempt at producing a quality project.	/ 25 pts
Connection to Interdisciplinary Policy Framework view longer description	25 pts **Exemplary** The presentation accurately and comprehensively applied the steps of the interdisciplinary policy framework covered in class to develop policy recommendations. Where appropriate, citations were available.	22 pts **Proficient** Some aspects of the interdisciplinary policy framework covered in class to develop policy recommendations were not in evidence. Some steps may have been discussed in the presentation, but not clearly. Some key citations may have been missing or may have been inaccurate or irrelevant.	20 pts **Partially Proficient** Some aspects of the interdisciplinary policy framework covered in class to develop policy recommendations were noticeably absent. A clear connection between the framework steps and the policy recommendations may not be readily apparent. Citations were not provided, inaccurate and/or irrelevant.	15 pts **Incomplete** There was no apparent connection between the interdisciplinary policy framework discussed in class and the finished presentation. There were no citations.	/ 25 pts

Total Points: 0 out of 100

Managing Government Access to Personal Information on the Internet

Reading Discussion

Interview of Edward Snowden in the Washington Post:

- Has the NSA's "collection philosophy" of "order one of everything off the menu" been wise? Why do some people feel concern?
- Is the "front page test" a fair litmus test of government activity?
- Do you agree with Snowden's assertion that individual targeting would cure most of what he believes is wrong with the NSA?
- Do you agree with Edgar that the NSA should now thank Snowden for the impact of the leaks? Do you think these ends justified Snowden's means of disclosure?

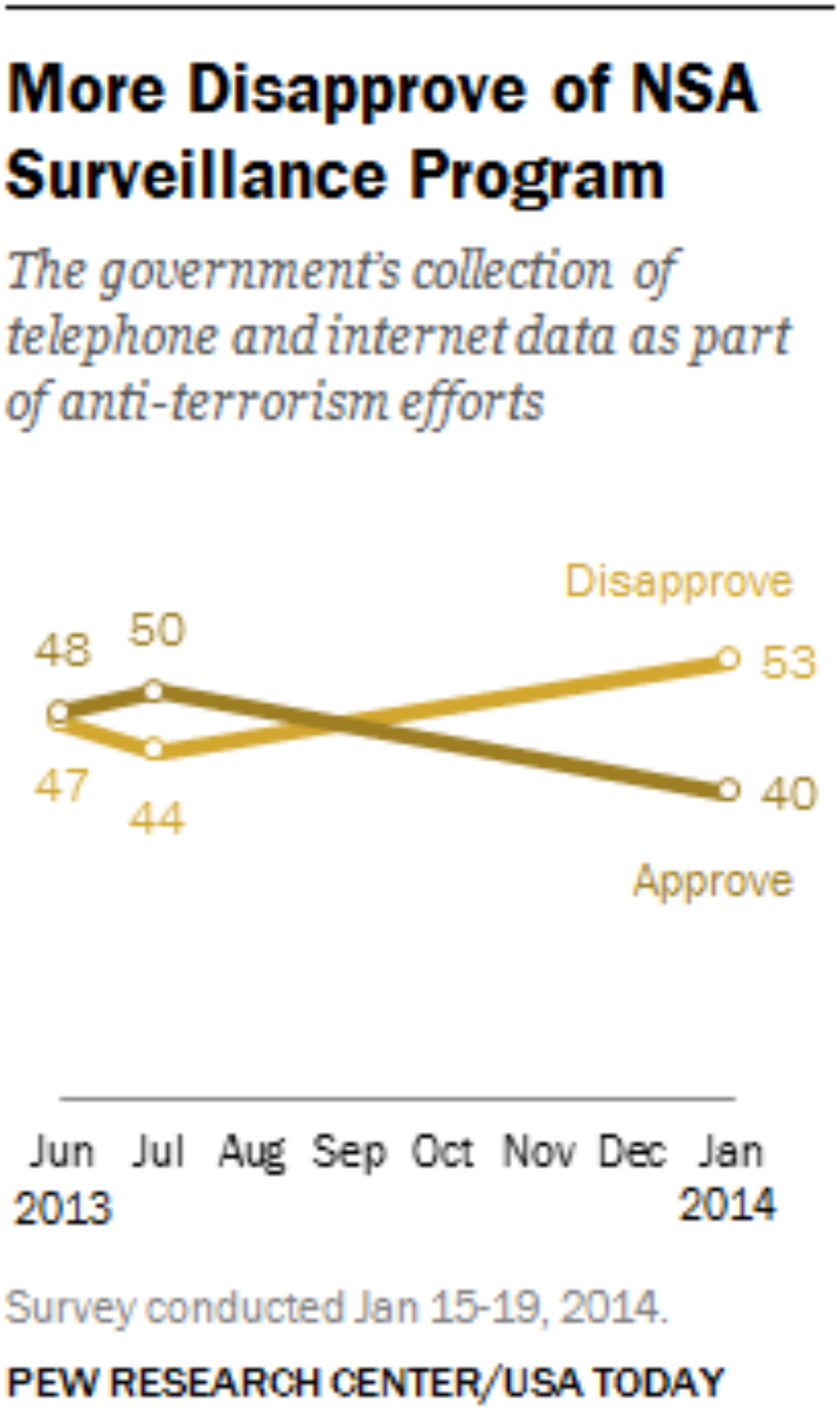
Reading Discussion (cont'd)

At the time of the Snowden interview, NSA was losing the PR campaign (see poll results)

How has public opinion changed since then?

So, key question: *Snowden: Hero or Villain?*

- *"I didn't want to change society. I wanted to give society a chance to determine if it should change itself."*



Reading Discussion (cont'd) — Uncovering the Details

- Section 702 of Foreign Intelligence Surveillance Act (FISA)
  - Created to provide judicial and congressional oversight of government's covert surveillance activities
  - Despite masking/unmasking controversy, extended 6 years in 2018
- NSA compromised National Institute of Standards and Technology (NIST) cryptographic standard by inserting back door
  - NIST immediately deprecated standard (a random bit generator)

Cybersecurity Unit Wrap-Up

Learning Outcome 1: Explain U.S. domestic and international cybersecurity policy

- Focus of Presidential Executive Orders to cover critical infrastructure
- Role of NIST Cybersecurity Framework to perform risk management of government agencies
- Role and viewpoint of State Department in pursuing U.S. view of the Open Internet and managing cyber threats to national security

Learning Outcome 1: Explain what the NIST Cybersecurity Framework covers.

- Set of standards and processes that align policy, business and technological approaches to address cyber risks
- Framework *core elements* are **identify, protect, detect, respond, and recover**
- Framework *implementation tiers* describe increasing degree of rigor in risk management practices and extent actions informed by business needs (partial, risk informed, repeatable, adaptive)
- Framework *profiles* enables organizations to establish a roadmap for reducing cybersecurity risk

Learning Outcome 2: Using cybersecurity terminology, describe how cyber threats result in cyber exploitation.

- Computers execute code; difficult to distinguish between data and programs
- Conflicts between security and end-to-end design principle of the Internet
  - Cloud versus endpoint security approaches
- Cyber Exploitation: Action to exfiltrate digitally stored information to unauthorized parties

Learning Outcome 3: Explain the economics of cybersecurity

- *Misaligned incentives* between those responsible for security and those who benefit from protection
- *Information asymmetries* due to lack of data needed to guide security investment
- *Externalities* such as free riding since security depends on weakest link in the chain — so why invest if others do not?
- Solutions to address these problems include ex ante safety regulation, ex post liability, information sharing and cyber insurance

Course Summary…Almost There!

Course Review

<u>Unit 1: Interdisciplinary Policy Framework</u>

- Barlow's Declaration of the Independence of Cyberspace
- Reasons to regulate
- Methodology to analyze and discuss
- Internet disruption - going the way the Pioneers want?

Summary of Framework Steps

Step 1: Identify the Problem and Current Policy

Step 2: Define Policy Objectives

Step 3: Understand Role of Technology

Step 4: Develop and Analyze Policy Options

Step 5: Compare and Recommend Best Option

Unit 2: Achieving Broadband Universal Service through National Broadband Plans

- Reason for National Broadband Plans
- Efficacy of Broadband Plans
- Politics of Broadband — What Should be the Definition?

Unit 3: Using Network Neutrality to Insure Access to the Internet

- Changes in Net Neutrality Rules
- Understanding the role of network management
- Economics of net neutrality: zero-rating and sponsored data plans
- Ex ante versus ex post regulations

Unit 4: Spectrum Management: Allocation of a Scarce Resource

- Spectrum Management
- Economics of Spectrum Management
- Spectrum management models

Unit 6: Privacy on the Internet

- Online privacy policies
- Tracking technologies
- Economics of privacy
- Privacy policy critique

Unit 7: Cybersecurity in Crisis

- Focus of domestic and international cybersecurity policy
- NIST Cybersecurity Framework
- Cybersecurity threats
- Economics of cybersecurity

What We Learned…

Market Opportunity

Internet making the world smaller, more reactive, more informed…

Innovation and Economic Development

Global Context

Course Learning Goals

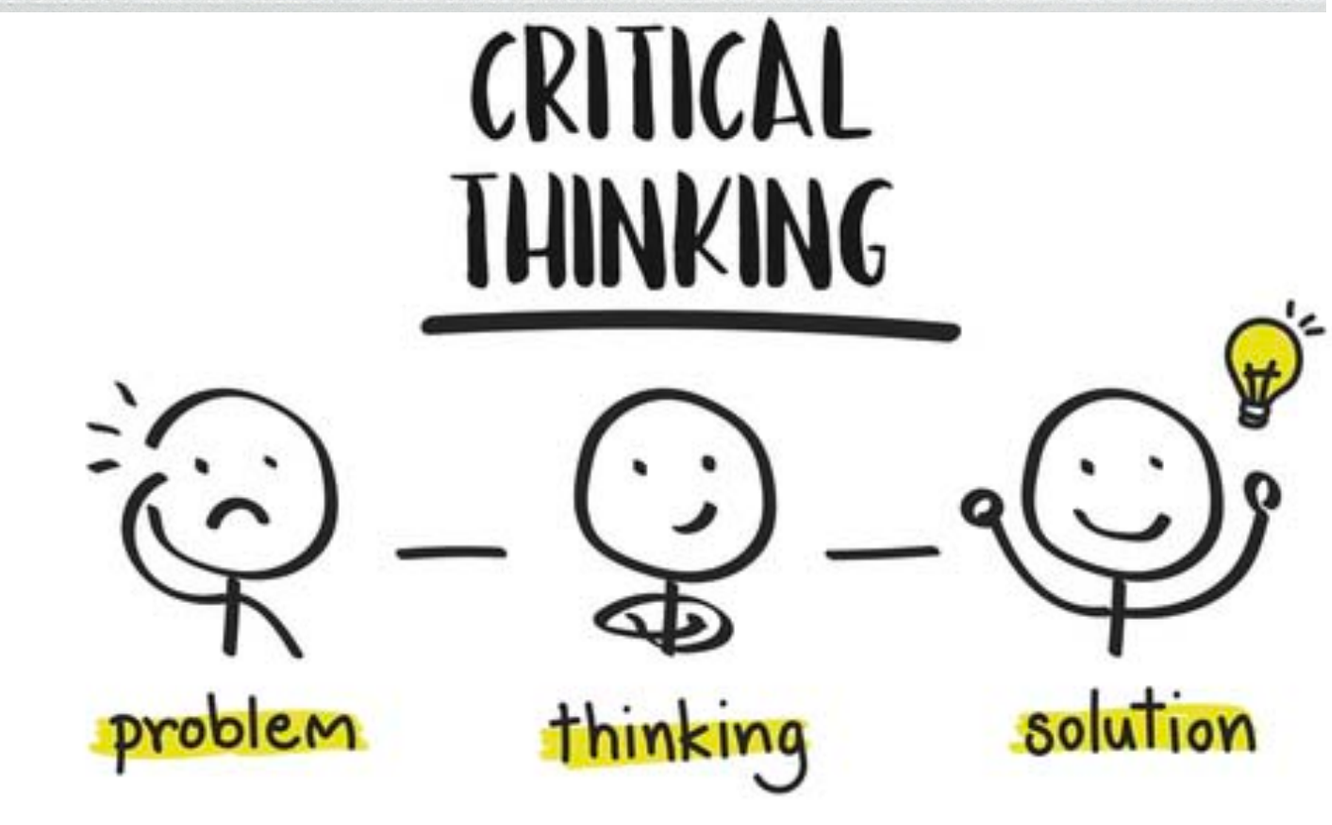
Policy Understanding	Describe core problems and policies impacting telecommunications and the Internet
Analytical Review	Develop and apply an interdisciplinary framework to critically evaluate efficacy of past and current policy initiatives
Writing and Verbal Skills	Write and articulate clear, well-reasoned positions on current policy issues and debates

principles of Internet policy

the fundamental truths or propositions that are the foundation for how Internet services and systems work from a societal perspective

What Is Important to You?

What's Your View of the FUTURE INTERNET…



Faculty Course Questionnaire

colorado.campuslabs.com/courseeval