Cybersecurity Educaton for Policy Makers
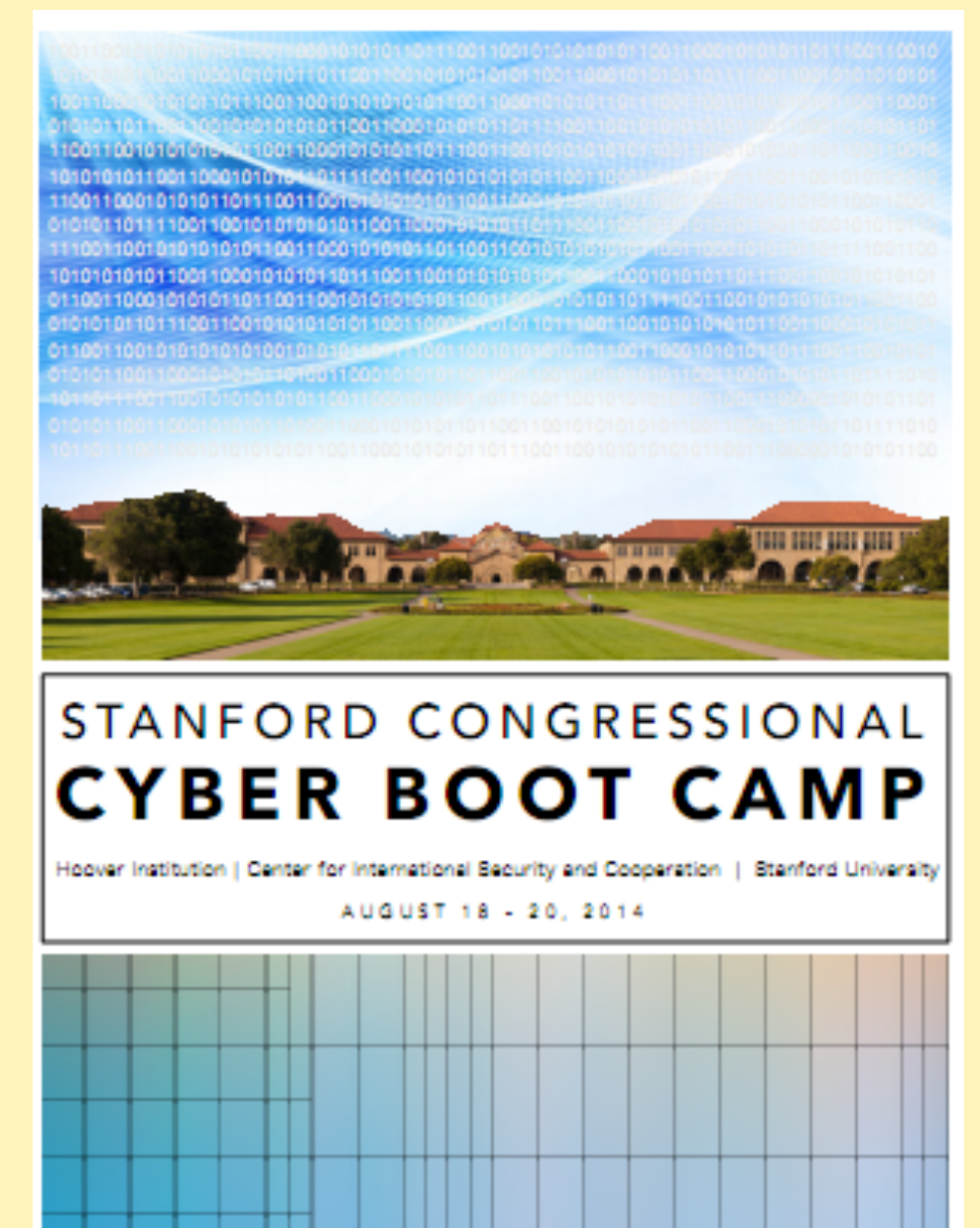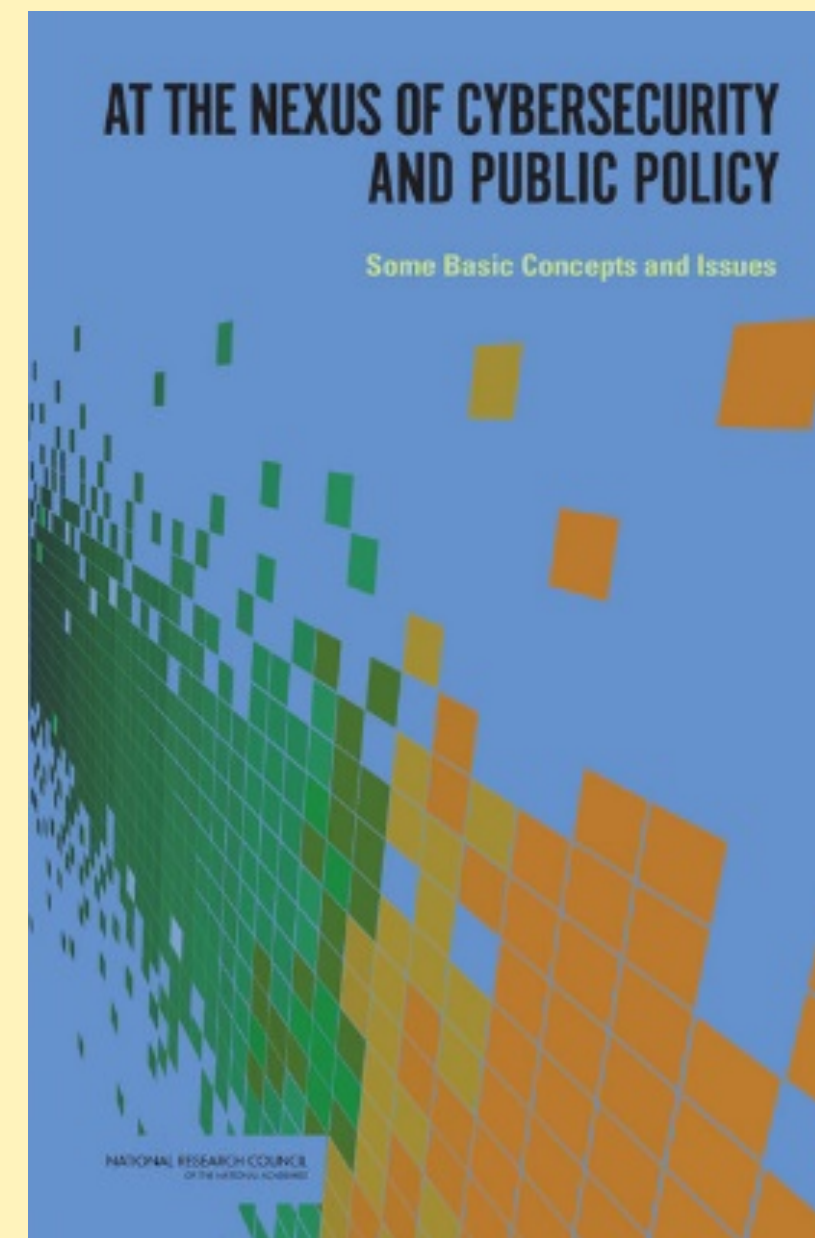
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The objective of this project is to develop cybersecurity educational materials specifically tailored for government policy makers that:

… provide necessary background on some basics of information technology and their significance for cybersecurity.

… focus on basic principles, e.g., better cybersecurity from less information technology; knowledge of penetration; defense per se; accountability; containment, recovery, and resilience; active defense

… underscore nontechnical influences on cybersecurity

… address tensions between cybersecurity and other public policy concerns, such as economics, innovation, privacy and civil liberties, and international relations/national security. s

Content above (⬆) summarized at Boot Camps (⬇) for Congressional staffers. Project will develop materials based on boot camp presentations and other sources.

Challenges of policy makers as "students"

- Adults rather than teenagers or younger
- Gainfully employed with high degrees of responsibility rather than in school. Examples:
  - Congressional staff, a mile wide and an inch deep
  - Military personnel (e.g., operations, intelligence, communications, planning, but NOT cyber)
- Constraints/characteristics
  - Profound time constraints
    - Must learn in hours, not days or weeks.
  - Short on patience and attention span
  - Low tolerance for explanations that do not "make sense" or inquiry-based learning.
  - Power relationship reversed from traditional education (learner can dismiss teacher)
  - Have experts on hand where specific skills or competence are needed.
  - Needs
    - "to have a sense of.."
    - "to be familiar with…"
    - "to be comfortable with …"
    - "to have a feel for…"
    - To ask sensible questions.
    - To synthesize and categorize information, problems, case studies, etc.
    - To frame the right questions,
    - To discriminate between options with assistance,
    - To effectively search for a resource or person who can help a given problem.

Approach

- Production of materials tailored explicitly to policy maker questions (FAQ answers)
- Video and text based.
- "Bite-sized" chunks, to accommodate limited time and attention span

Materials to date

- Dozens of short video segments created to answer policy maker FAQs
- Accompanying Powerpoint slides and supplementary material

Continuing Dilemmas

Dilemma 1: Nearly all science education research suggests importance of interactive inquiry in the development of scientific competence in students. But policy makers don't need competence per se but rather the ability to ask sensible questions of others with such competence.

Where's the existing research addressing this question?

Dilemma 2: Formal evaluation of an education outreach effort to policy makers, especially in an online environment, is unlikely in any but the most subjective of terms.   Entirely unrealistic to expect policy makers to take pre- and post-tests. From the policy maker's standpoint, a much more meaningful measure is captured by his or her own evaluation of whether a particular outreach effort met his or her needs—that is, the effort was successful if the policy maker says it was.

**This is a terrible way to ascertain success or effectiveness!
What should we do?**

Interested in meeting the PIs? Attach post-it note below!