Panel Discussion:

Public Health, National Security, and Information Technology

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Are Public Health and National Security at Odds?

- Public Health → open community:
  - free sharing of ideas, focus on health of communities
  - privacy of individuals is top priority
- National Security → closed community:
  - compartmentalized & classified ideas, focus on the stability of the state
  - privacy of individuals is secondary to primary mission
- Information Technology
  - often in the "middle" of these two demands

Public Health and Information Technology

- Challenge #1:
  - both people & infectious diseases often span county/state lines
  - across all 50 states, how do you link multiple health records accurately to a common individual, without access to a personal identifier?

- U.S. Federal gov't limited from collecting personal info
  - why? → Health Insurance Portability & Accountability Act of 1996

- All health providers must demonstrate they can:
  - securely collect health information
  - remove personal identifiers as appropriate
  - prevent unauthorized access to individual health records

Public Health and Information Technology

- Challenge #2:
  - how to agree to standards to transport & share data across state lines
  - how does an IT system in one state recognize & approve the sharing of data with an individual in a different state?
- The 50 states have the power to define how they will each implement their health system
  - U.S. Constitution does not specify who oversees health → state right
  - States have different models, including network authentication & security
- 50 states = 50 different user directories?
  - each state health dept operates differently

National Security and Information Technology

- Challenge #3:
  - who decides what data is seen by whom?
  - what are thresholds where data should be proactively "pushed" to agencies?
  - is a single security "trust broker" needed to provide common authentication of individuals across government?

- There are an average of 40+ different agencies involved with response to a bioterrorism event
  - all response is local, need to link local assets with state & Federal assets
  - need to be able to dynamically filter data by agency & role

National Security and Information Technology

- Challenge #4:
  - link across databases & agencies, yet prevent misuse
  - link artifacts tied to individuals in databases at local, state, & Federal levels
- Both public health & national security attempt to quantify the real world
  - how to capture in a usable vocabulary/taxonomy all features of the world?
  - which group should set these standards; how should they be reinforced?
- Is knowledge management possible across government?
  - each outbreak response, different databases built ad-hoc with no standards

Can Governments Effectively Implement Information Systems and Technology?

- Government structure:
  - large, designed to be relatively stable & unchanging → slow response
  - major projects often need to request budget 3+ years in advance
  - often more reactive vs. proactive, subject to political "hot topics"

- Government culture:
  - the "top bosses" (political appointees) turnover relatively frequently
  - the "trench" workers are often with government for life
  - incentives may make individuals risk-adverse at expense of innovation

- How to prevent government IT efforts from failing more frequently than business IT efforts?

What Can Be Improved With IS Education

- For students with IS focus:
  - encourage linking concepts & research of IS to an application early, such as public health, national security, human welfare, global commerce, etc.
  - schools should form partnerships with local, state, and Federal assets
- For those with non-IS focus but should take IS courses:
  - require MBA's, MPA's, MPH's, MSCI's, MSN's to take key IS courses
  - students in all fields need to understand at some level the value of IS
  - students should understand what is involved with building & maintaining a information system; software development can be "demystified" for everyone

Links to Further Information

- Centers for Disease Control, Emergency Response:
  - http://www.bt.cdc.gov/
- HIPAA:
  - http://www.cms.hhs.gov/hipaa/
- Assoc of Information Systems, Curriculum Debate:
  - http://www.aisnet.org/Curriculum/
- Contact Info:
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  - http://userwww.service.emory.edu/~dbray/