



THE FOUNDATIONS FOR EVIDENCE-BASED POLICY

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KEY CHALLENGES IN DOI- NO ENTERPRISE VISIBILITY

Culture

Data are locked in stovepipes (disparate, distributed files, databases, and services), which were not developed for widespread sharing and use. ;

Data lacks uniformity and semantics, so they are not understandable by both human and machine... this inhibits widespread consumption and use;

Data lacks context that explains its meaning, significance, and relevance...

FUTURE STATE

Data is easily discovered by humans and machines, fused, analyzed and appropriately used for informing public policy and driving more effective mission outcomes.

HOW DO WE GET THERE QUICKLY YET SUSTAINABLY?

Sociology – Establishing a data driven culture

Economics

- Incentives / Disincentives
- Documenting the cost of status quo and risk benefit analysis.

Psychology

- Alleviating individual's fears

Computer Science – intelligent systems

ORGANIZATIONAL INCENTIVES TO DRIVE A DATA DRIVEN CULTURE

Leadership

- Support a culture of learning from data rather than punitive

Initial Focus on common needs and interests grounded in shared missions

- Horizontal Government where agencies are both data producers and consumers
 - National Defense / Intelligence Community
 - Emergency Response
 - Environmental Management
 - Health Care

Agencies are more likely to take actions to lower their risk profile often in reaction to a negative event rather than a positive

- Mitigate legal liabilities
- Minimize reputational risk

Establish clear lines of accountability for data stewardship / openness

ECONOMICS

Measure the costs associated with the full data lifecycle

Celebrate data driven mission improvements through quantitative evaluation as well as through stories

Data curation is time consuming often with rewards only tangentially aligned to the programs were data originated...(secondary and tertiary uses)

PSYCHOLOGY

Ego – ‘my data” versus the citizen’s data

How can I get leadership to pay attention to the data?

Fear

- How do I know others will use my data properly?
- How do I know the data is accurate?
- How will respond to others questions about “my” data
- Leadership will use the results against me or my program
- Will I still have a job?

COMPUTER SCIENCE -JUST MAKE IT EASY!

Data management processes needs to be integrated into a full suite of COTS software

Not just about the Data Scientist

AI assisted knowledge graph population and maintenance with curation workflows built in

SOMETIMES CONFLICTING OBJECTIVES

Security

- Mosaic

FOIA

Controlled Unclassified Information including Privacy, Business Sensitive, Law Enforcement

- Cultural Resources
- Endangered Species