Federal Networking and Information Technology R&D Program

Big Data Senior Steering Group

Wendy Wigen, Technical Coordinator
April 13, 2012

Member Agencies

- ◆ DOC
  - ➢ NIST
  - ➢ NOAA
- ◆ DoD
  - ➢ DARPA
  - ➢ NSA
  - ➢ OSD
  - ➢ Service Research Orgs
- ◆ DOE
  - ➢ NNSA
  - ➢ SC

- ◆ DHHS
  - ➢ AHRQ
  - ➢ NIH
  - ➢ ONC
- ◆ Independent Agencies
  - ➢ DHS
  - ➢ EPA
  - ➢ NASA
  - ➢ NARA
  - ➢ NSF

NITRD

"We don't have a data problem… we have an analysis problem…"

Or

"We have a filtering problem…"

Or

"We have an opportunity…"

Big Data *is a term applied to data sets whose size or complexity is beyond the ability of commonly used software tools to capture, manage, and process the data within a tolerable elapsed time.*

Big Data Senior Steering Group's (BDSSG) Purpose

◆ Describe what a Big Data National Initiative would look like, its vision, goal, scope.

◆ Develop four main areas:

- ➢ Core Technologies
- ➢ Domain Research Projects
- ➢ Challenges/Competitions
- ➢ Workforce Development

Vision

A future in which the ability to analyze and extract information from large, diverse, and disparate data sets accelerates the process of scientific discovery and innovation; promotes new economic growth; and leads to new fields of research and new areas of inquiry that would otherwise be impossible.

Goals

◆ Promote New Science…by harnessing big data.

◆ Exploit big data to address national needs and agency missions.

◆ Support stewardship of federal data.

◆ Develop the necessary workforce and infrastructure to advance data science.

Core Technologies

◆ Solicitation: *Core Technologies and Technologies for Advancing Big Data Science & Engineering (BIGDATA)* NSF 12-499

◆ http://www.nsf.gov/pubs/2012/nsf12499/nsf12499.pdf

◆ 9 NSF Directorates and 7 NIH Institutes

Challenges/Competitions

◆Series of Challenges: Ideation -> New Tool

◆Workshops to decide the parameters

◆NASA Center of Excellence for Collaborative Innovation - > Plan (April 12)

◆BD SSG Approval and Funding

NITRD

Domain Research Projects

◆Identify current projects that could benefit from cross-agency collaboration.

◆Propose new cross-agency projects.

◆*Examples:* Earth Cube, XCEDE, NIH Electronic health record Collaboratory

NITRD

Workforce Development

◆ 20 projects across 7 agencies that may be suitable for adapting to Big Data, (Grants, Fellowships, Summer Internships, Scholarships, etc.)

◆ Undergraduate, Doc, Post-Doc, Mid-Career

◆ Building a Data Science Community: Meetings at annual conferences, professional associations etc.

NITRD

Contacts

◆ Wendy Wigen, Technical Coordinator

◆ wigen@nitrd.gov

◆ Co-Chairs:
- ➤ Karin Remington, NIH
- ➤ Suzanne Iacono, NSF

NITRD